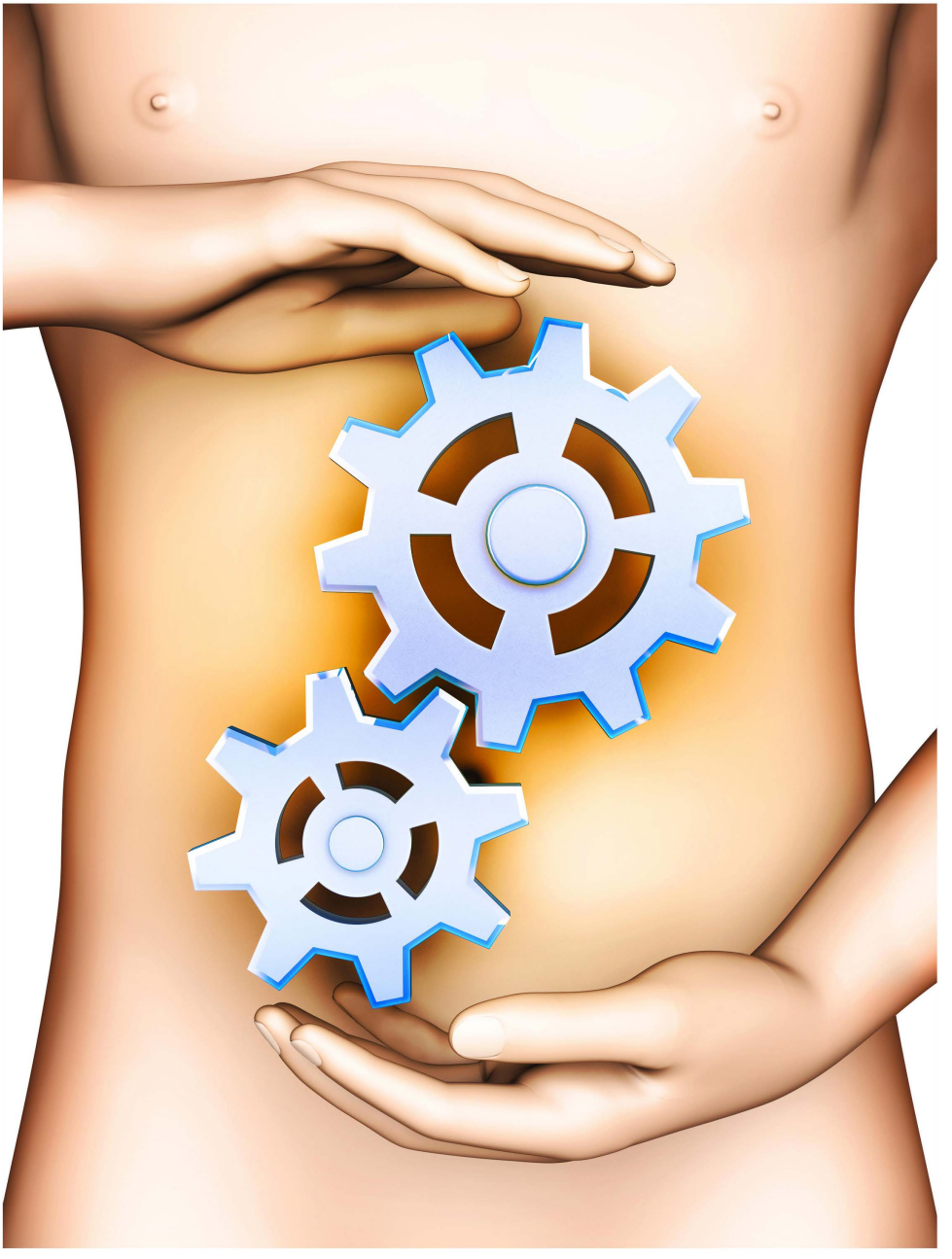
COLON HYDROPATHY

THE CLINICAL EVIDENCE



AND THE HEALTH CONDITIONS THAT HELPS TO RESOLVE

Colon Hydropathy

The Clinical Evidence
&
The Health Conditions
That Helps To Resolve



The circle with the Cross
These make for the sign that all thou hast heard is fulfilled in Him

Hospitallers Order of the Good News

The Lord He Is God

Trust in Him who Is the Way

Keep thy faith in Him, that All will be and is right!

And make thy life, thy activities in accord with same!

Colon Hydropathy, The Clinical Evidence, and The Health Conditions That Helps To Resolve

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Book Nº

In Gratitude To the God of Abraham: Who Is The God of Humankind, Our One and Only Lord and Saviour The Christ. This Book is dedicated to all those who have perished at the hands of ignorant men; To all those Wise Men who understood the difference between what is right and what is wrong; To those wise ones, who are ever present and let not fall civilization.

"The Lord He Is God"

Has in the Oneness of the Living God the Christ Our Lord and Saviours, so it is in the oneness of comprehension and understanding in which those points of truth these authors all conclude and agree upon. And as a result on which they all agreement this book is produced and given as a testimony that: "The Lord He is God", and the Lord walks with us everyday, even if you do not see Him, He is with us, He is with those who ask for Him for the Lord Is God of Humankind. These are not vain words, but are those words from those who know The Lord, His Ways, His Coming. And many others whose names do not appear here but they know who they are. To all physicians, whose convictions regarding the soundness of principles set forth in this work, and whose fearless advocacy of therapy based on these principles have been a constant source of encouragement and inspiration to many, this book is also dedicated.

Acknowledgements

The collective knowledge generated from academic research summarized in various references has been critical in the creation of this published work, which is best viewed as a comprehensive compilation and collection of published information by many authors throughout the ages, as well as personal and clinical experience in the treatment of self and others. This work was possible only by the guidance and Light of Christ who Is God. A special thanks also to those who work with Him and help all of us. May each individual be able, to find this eternal truth, while on earth.

Chapter 27 is dedicated to the memory of Dr Robert Coleman Kemp, MD, (1865-1918), for his pioneering work in modern Clinical application of Colon Hydropathy.

Chapter 36 is dedicated to the memory of Dr Walter Arthur Bastedo, MD (1873-1952) for his clinical work in Colon Hydropathy.

Chapter 5 is dedicated to the memory of Oscar Boto Schellberg, RN (1870-1932), for his lifetime work and dedication in pursuing clinical methodology in the field of Colon Hydropathy.

Chapter 12 is dedicated to the memory of Dr Henry Andrews Cotton, MD (1876–1933) and Dr Rebekah Wright, MD, Hydropath for their important contribution to Hydropathy and the clinical work done proving that Hydropathy and Colon Hydropathy are an important Therapeutic tool in Mental Health, and to the memory of Dr Nicholas James Gonzalez, MD (1947–2015), who's researcher pointed to the right direction.

Chapter 35 is dedicated to the memory and gratitude of the clinical work of Dr August Von Borosini, MD (1874-1965), in the field of colon irrigation in relation to keeping the gastrointestinal track healthy in the prevention, and resolve of disease.

Credits and References

Although all credits and references where given to the best of our knowledge and information contained in the central archives of the Hospitallers Order of the Good News. If there is any errors or mistakes we kindly ask the reader to allow the knowledge of such items in order to rectify same in future editions of the present Book.

Health and Therapeutic Journals and Books

The present work rests upon the foundations of those civilization luminaries, men and woman of exceptional talent, intuition, and detailed observation. Furthermore it was a privilege to us, for them to have the dedication and time to write and publish their clinical findings. There is then a vast amount of Journals and Books devoted to the Health and Therapeutics. Of these printed records those from 1850 to 1950 in this one hundred year period we specially encounter that the majority of what is to be known concerning disease its origin and its treatment and cure, where in fact correctly identified. These records, in their collective, contain timeless observations of which many remain permanent truths. These pearls are hidden from plain sight, only the adept or the initiated can identify them and pick one by one, from the surrounding confusion.

Sources

This book is a Record of the clinical findings of many great Health Practitioners, their findings remain the same throughout the centuries. All share the same conclusion. The Truth is in plain site. Apart from the Archives of the Hospitallers Order of the Good News Library, we are also very grateful to all libraries, who have kept books for the last 200 years, those of which by their keeping allowed the information on those books to survive, and be upon their withdrawn from their keeping available to purchase by the Order, and kept in its Archives and Library. The Hospitallers Order of the Good News, has therefore obtained many of this rare Books, many of which are not available, nor found in libraries, for this we thank The Lord who Is God, for having placed the same in keeping of the Order.

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Dedication

"To the victims, past and present, rich and poor, of Adulterated Food, Patent Medicines, Compulsory Vaccination, Abuse of Surgery, booze-guzzling, industrial diseases, autocracy of dress, false modesty, sex ignorance, and conventional hypocrisy; to those, who never had a real opportunity to learn the truth, being kept in ignorance through the vicarious and popular channels of misinformation.

To those, whose nerves, muscles, bones, marrow, and blood have been converted into dollars and cents under, the iron heel of commercial greed, in the name of health, science, and benevolence; to those, whose inner and better selves remain crushed and stifled as a result of monotonous, loveless lives, tyrannical and fanatic parents, and uninspiring surroundings in general; to the patient "sons of toil," who constantly undermine their health and risk their lives, making it possible for us to appreciate art, music, literature, culture, and invention that the genius of human brain has brought forth, yet have for themselves little in return, save fatigue, malnutrition, soul-starvation, anxiety, fear, filth and premature death.

To all these victims of our seething, restless, debauching, artificial, and health-wrecking era, impudently labelled "civilized". I affectionately and hopefully dedicate this book." - Dr Simon Louis Katzoff, MD, in "Timely Truths on Human Health", 1921.

To all the Clinicians that have taken their time to record the information here given. And To Him, To Whom Health is Wealth, This Book is Dedicated.

Disclaimer

"The content of this Book is based on research conducted by the Members of the Hospitallers Order of the Good News, unless otherwise noted. The information is presented for educational purposes only and is not intended to diagnose or prescribe for any so-called "medical" or "psychological" "condition", nor to prevent, treat, mitigate or cure such "conditions". The information contained herein is not intended to replace a one-on-one relationship with a qualified healthcare professional. This information is not intended as "medical" advice, but rather a sharing of knowledge and information based on research and experience. The Hospitallers Order of the Good News encourages the reader to make your own health Care decisions based on your judgment and research in partnership with a qualified Health Care Professional. These statements have not been evaluated by the Food and Drug Administration, in the USA. The information on this Book is not intended to diagnose, treat, cure or prevent any disease."

As sad it may be, that one is forced to place such a disclaimer, just serves to illustrate the state where the present civilization is at the moment. A civilization founded on lies has no future, a civilization based on false or fake pretences has no future, a civilization that follows political correctness is fake by proxy. To sustain the present civilization is to sustain a lie. Thus the solution is to establish a new civilization, this if Humankind will ever have a chance to develop on Earth.

In that the End of Times and the Beginning of a New Era, 2020

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Preface

Any Health Clinician reading this pages, **will find it an essential tool to have in any, and every clinic practice**, no matter what his speciality may be. This book, was written in order to provide full and unequivalently support, to that which has already been known for at least the last 200 years and more. **That is:** The care and maintenance of the large bowel, in keeping it clean, and in good functioning order. By the use of **Hydropathy it is thus clearly shown by the research presented in this book; that this valuable Therapeutic Method, Colon Hydropathy; is able to aid the body in resolving several health conditions**. It is known that, t**he colon is an organ that plays a vital role in health**, and its importance is shown, over and over again, throughout the pages of this book.

> *"The importance of the colon is borne in upon us by the recurring experience of our daily lives. On its periodic functioning depend our health, comfort, mental alertness and emotional outlook to a greater degree than we care to confess. Who is more of a misanthrope than the subject of the loaded colon? Optimism and pessimism in outlook may be decided by the state of the colon, good temper or bad temper, sunshine or cloud in the domestic circle. Recall, too, the contrast between the clear skin and pinkness of complexion on the one hand and the muddy skin and sallow mien on the other hand, the former associated with the functioning and the latter with the non-functioning colon. Another fact worthy of note is*

the extraordinary rapidity with which unloading of the lower bowel is followed by relief of general abdominal discomforts and the re-establishment of a sense of well-being." - Lord Dawson of Penn, Physician to H.M. the King, London Hospital in "BMJ", 9 July 1921.

"The United States has less than 5% of the global population, consumes 80% of prescription opioid painkillers, as a result is seeing the lion's share of constipation related to use of such drugs." - in "Opioid Constipation Drugs Are Serious Business", CNBC, 11 February 2016.

"In 2017, OTC revenue of laxatives in the United States reached around $1.3 Billion of U.S. Dollars." - in "Statista", 2019.

"Many patent medicine men are getting rich on their physics and laxatives, which might be obviated by enlightening the people to more freely flushing their colons with tepid water. It is very unscientific to give laxatives or cathartics by mouth to sicken the patient, by an operation of medicine, on from 20 to 27 feet of intestine, when sufficient and easy movements can be obtained by flushing the rectum, and colon with tepid water." - Dr. Silas Hubbard, MD, in "The Medical Summary", Vol.13, 1892.

"The technic of enteroclysis and rectal injection is much more difficult than is generally supposed by both physicians and nurses. The most essential features of this procedure are the position of the patient and the apparatus employed to conduct the water into the bowel."

- Dr Samuel Goodwin Gant, MD in "Constipation, Obstipation and Intestinal Stasis, Autointoxication", 1916.

"The Aim of Colonic Lavage is to rid the colon of old faecal material, mucus and debris, as far back as the ileo-caecal valve, without causing any distension or adding to the inflammation present. The patient should be instructed to have the bowels well opened before lavage." - Dr J. E. R. McDonagh, FRCS, Hunterian Professor at the Royal College of Surgeons in "The Nature of Disease", Part III, Sect. I, 1931.

"Colon lavage employed as a definite Therapeutic Measure in the treatment of disease, its greatest field of usefulness lies in that broad group of low-grade chronic infections variously spoken of as chronic intestinal toxemia, chronic focal infection, autointoxication, sluggish liver, etc. Its use in these conditions is for the purpose of promoting tubular and cellular drainage, the healing of diseased tissues, the restoration of normal colon function, the improvement of both capillary and lymphatic circulation, and of liver function. The principle back of free drainage is that infection tends to disappear when drainage is adequate, and in the absence of a feeder." - Dr James W. Wiltsie, AB, MD in "Chronic Intestinal Toxemia and Its Treatment", 1938.

" Intestinal Douche I advise that once a week a thorough cleansing of the colon with a douche of salt and water should be practised. I regard this as an excellent, and indeed, essential adjunct to the modified system which I recommend and practise, and I am satisfied of its

immense value in the maintenance of health and the prevention of disease. A saline enema not only removes irritating secretions and products of bacterial growth, but cleanses the intestinal mucous membrane. This, it does both by dissolving more or less adherent mucus, and also by absorption into the lymphatics and capillaries, washing from them many toxins and microbes awaiting an entry into the circulation. As much as four times the volume of the blood may thus be given when required, a corresponding quantity of fluid being passed through the renal epithelium, the hepatic capillaries, and other excretory and defensive organs, washing out insoluble and diluting soluble toxic products. Hence, in addition to its prophylactic function, it is of immense service in the treatment of cases of: Uraemia, Eclampsia, Coma, and the intoxication connected with extensive superficial burns." - Dr Alexander Bryce, MD in "Intestinal Toxaemia or, Auto-Intoxication in the Causation of Disease", 1920.

"Colonic Therapy has reached that stage in the system of healing arts where it can no longer be called a fad. Like all therapies, it has had its quota of skeptics. It ll has been libeled "glorified enema" by physicians who doubted its efficiency; by others it has been called "intestinal flushing", "internal baths," etc., when they wished to feature a new fad to their patients. In some respects colonic therapy is very much like other systems of healing. To master it in detail requires sound thinking, and the rational application of the principles of intestinal chemistry. Because colonic apparatus is simple to operate it should not be assumed that the therapy is one of easy acquirement. The thought behind

its successful practice should be the result of much study." - Dr Bernard Reamy Le Roy, DO in "The PH in Colonic Therapy", 1933.

Is Colon Hydropathy Embarrassing?

The client dignity is always protected by draping the body, and the procedure is done with modesty for the client and clinician. The client can keep most of the cloths on, or remove it and wear a gown.

Important Reminder

Please be aware that this book is neither a "training manual", nor a "manual", of any kind to perform Enemas nor Colonic Irrigations.

Colonic Irrigations not performed by a Clinically Trained Therapist, or Practitioner in Colon Hydropathy should not be done. Clinical evidence and case reports on certain health conditions, colonic irrigations can be fatal.

If contraindications are known and observed, then Colon Hydropathy is a usefulness therapeutic agent.

Contraindications are not shown, nor are given in this book.

Those wishing to qualify and train professionally in the correct administration of Enemas, and Colon Irrigation these given correctly, and safely in the Colon Hydropathy manner, should apply to:

Volksmed School of Health and Pharmacology

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Chapter 1

Early References to Colon Hydropathy

"All treatises on Hydropathy approach this system by recommending the use of the syringe. There is a difference, however, between the ordinary injection as used by Hydropathic Doctors and the new practice of "flushing the colon." The former consists of injecting a small quantity of warm water into the rectum or lower end of the colon, washing that out only, while the latter washes out and cleanses the entire colon with from two to four quarts of hot water, and also when necessary, cleanses the kidneys by retaining a quantity of water in the cleansed colon, until it is absorbed and passes out through the kidneys. The system of rectal enemas is as old as medical science and seems to have originated among the ancient Egyptians who practiced it, and who seem to have acquired their knowledge from observing a bird called the Ibis, a species of Egyptian snipe. The food of this bird gathered on the banks of the Nile was of a very constipating character, and it was observed, by the earliest naturalists, to suck up the water of the river and using its long bill for a syringe, inject it into its anus, thus relieving itself. Pliny says this habit of the Ibis first suggested the use of Clysters to the ancient Egyptian doctors, known to be the first medical practitioners of any nation, not excepting the Chinese. (Naturalis Historia, Lib. VIII., Dap. 41, Hagae 1518)

Another writer viz., Christianus Langins says, that this bird when attacked with constipation at some distance from the river, and not able to fly from weakness, would be seen to crawl to the water's edge with drooping wings and there take its rectal treatment, when in a few minutes it would fly away in full vigour of regained strength. When the writer

was a boy, his father's code of medical practice, used in raising a large family, was bath, sweat, vomit, and enema. The enema consisted of from a pint to a quart of warm water, which was immediately discharged, carrying with it the contents of the lower rectum. On this system without the aid of doctors, except on one occasion, a large family was raised without the loss of a single member, to in turn become fathers and mothers. The small rectal injection was a good thing as far as it went, a vast improvement over drugs, purgatives, the only fault it had was that it did not go far enough. It doubtless led to the discovery of the more thorough and effective system of flushing the colon.

In a work published in 1847 entitled "The Water Cure Manual," Dr. Joel Shew substantially recommends this system.

> *"Quart after quart of lukewarm injections may be given until the alimentary canal is thoroughly cleansed. It may be repeated again and again in as great quantity as is desired. The thoroughly washing out, so to say, the lower bowels by which also the peristaltic or downward action of the whole alimentary canal is promoted, and by the absorption or transudation of water, its contents are moistened or diluted and the whole of the abdominal circulation completely suffused by that blandest and most soothing of all fluids, pure water."*

The New York Medical Record, 4 July 1891, published an article by Dr. Beverly Robinson, MD visiting physician to St. Luke's Hospital, on "The Internal Use of Water in the Treatment of Typhoid Fever". Dr. Robinson acknowledges his indebtedness to a paper read by Prof. Debove before the "Medical Society of Paris Hospitals" on 25 July 1890. In this paper Dr Debove reports the treatment of 150 cases of Typhoid Fever in the Paris hospital by the use of water alone, without medicine. The results of his treatment, as

narrated by him, were surprising to those accustomed to the drug treatment. The percentage of cures was far greater than under the drug treatment.

In the Chicago Daily Tribune, 3 September 1892, reports the treatment of cholera cases:

> *"The cable news from Hamburg states that great interest has been aroused by the introduction of a very simple but apparently effectual treatment for cholera. It is nothing more than copious enemas of warm salt water (injections into the bowels). It is claimed by some that the result of this treatment is truly marvellous, the death rate having been reduced fully fifty per cent in a few days by this method of fighting the disease. In some cases a cure has been affected by it, though the application was delayed till the patients were in such a state of collapse that it was impossible to discern the beating of the pulse, and this stage is usually regarded as beyond hope of recovery. It is claimed to cure almost every case when tried."*

In the Chicago Daily Tribune, 20 September 1892.

AN AMERICAN PHYSICIAN'S TRIUMPH
DR. ELMER LEE'S TREATMENT OF CHOLERA
PRONOUNCED A SUCCESS

The following letter is received from Dr. Elmer Lee:

> *"St. Petersburg — My stay in Russia is drawing to an end, and I am enabled to go home with the profound satisfaction of having accomplished the object for which I came. The cholera is abating here. The cases during my stay have been quite severe. I had no choice of cases, but I went right to work. The case rapidly convalesced and is*

now well. A case yesterday was received, vomiting and purging, the surface of the body covered with purple spots. Today he is well. Tomorrow he will be discharged cured. I have treated 22 cases, with but 2 deaths, one of which was a man who was moribund and treated by me under protest. The faculty of the hospitals voted today to adopt my treatment, not only in cases of cholera, but in dysentery as well, and give me a report in 6 months of all cases treated. Every cholera case is first brought into a special room and treated by irrigation of the large bowel. Afterwards comes a bath. Then he is put to bed. My own conclusions are established in the face of diplomatic difficulties. The patients cured by me are very deferential towards me, especially one old man, who crosses himself and prays for me every 5 minutes of the day, 6 new cases were treated today by me. Four of them are bad cases. I am supported and backed by the leading doctors of the city, the chief physician of the Department of Police, and the Governor of St. Petersburg. He says my theory is sound. I am going tomorrow to meet the directors of the Academy of Medical Research, an institution under the patronage of the Emperor and Prince Oldenburg. Elmer Lee."

In response to inquiry on the subject, the United States Consul-General at St. Petersburg telegraphs:

"St. Petersburg, 19 Sept. 1892. - I have visited the patients attended by Dr. Elmer Lee at the cholera hospital. His treatment is a great success. I am sending a report on it to the State Department. John M. Crawford. United States Consul-General." - Jas. W. Wilson, in "The New Hygiene", 1893.

"Previous to rising in the morning and going to sleep at night, when the arteries of my brain are beating somewhat violently, I hear a voice towards the back and upper part of my head; its sounds are perfectly articulate; its phrases constructed so as to be very rarely obscure. If I get up, I no longer hear the voice. However singular this may appear, I protest that neither my ideas, nor any of my thinking faculties, take any part in it knowingly. The starting point of all my uncomfortable feelings is in my belly; and so sensible is it, that pain, pleasure, grief-in short, every kind of moral affection, begin and end there. An unkind look instantly and painfully affects it, so as to disorder the entire system. I think by the belly, if I may so express myself." - This morbid exaltation of sensation is thus described by a lady to Ph. Pinel, Physician to the Emperor and King of France, Professor or the School of Medicine of Paris who quotes the words in his Nosographie Philosophique, ou La méthode de l'analyse appliquée à la médecine, Vol. 3, 1797.

The Flushing of the Colon

"The substances which have passed through the small intestine into the large one are of no more service. The large intestine is merely a receptacle for useless and deleterious substances, hence it ought to be evacuated once in 24 hours.

Some people can defecate much easier than others, and so long as they can daily do this without inconvenience, treatment will not be necessary; but in case of constipation or partial evacuations of the contents of the colon, there is nothing equal to flushing the colon once a day with tepid water. No hurt can come from it. It will prevent and cure a multitude of diseases. It will prevent and cure a foul breath, pruritus ani, dyspepsia and piles. It will wash away ascarides, and prevent their return. It will do very much towards preventing consumption, and greatly aids in the cure of that disease. It will greatly aid in preventing and curing dysentery.

Ordinarily, a pint or quart of water is sufficient for one injection, especially if the patient at the same time aids the

operation by kneading himself in the right iliac fossa, and from there over the whole length of the colon, repeating the operation until the contents of the large intestine are thoroughly evacuated.

The ordinary elasticity of the large intestine is such that it will press the water even to the caecum, and that, too, while the patient is in the erect position; but where this is not the case, and it is necessary, then the patient ought to lie on the right side while the injection is given, so that the water will gravitate to the caecum.

The reading of Dr Wilford A. Hall's treatment would indicate that he too often prescribed excessive quantities of water at one time, viz., four or five quarts, thus dilating the colon painfully, and tending to paralyze the large intestine.

He also recommends the frequent filling up of the large intestine with water and letting it remain there to be absorbed in the system. I think the colon is a foul receptacle for water to be absorbed in the system, and it should never be used for this purpose as long as the stomach can be used for the same purpose.

A certain physician says he has in many cases cut the spouting pockets of mucous membrane of the rectum and colon, which retained faecal matter, to the great relief of the patients. I have no doubt the free flushing of the colon with tepid water would obviate the necessity of such formidable operations. Many patent medicine men are getting rich on their physics and laxatives, which might be obviated by enlightening the people, to more freely flushing their colons with tepid water. It is very unscientific to give laxatives or cathartics by mouth to sicken the patient by an operation of medicine, on from 20 to 27 feet of intestine, when sufficient and easy movements can be obtained by flushing the rectum, and colon with tepid water. Very hot or very cold water should never be used for this purpose, excepting when extraordinary occasions require it. If it is very wholesome to cleanse the face, eyes, mouth, hands and body with water, why object to cleansing the anus, vagina, rectum and colon often with tepid water?

Paul says, in substance, we pay more honour to our uncomely parts. I would add that if we paid more honour to the large intestine by ordering it to be flushed with tepid water, we would do well. The human civilized species is under so many restraints regarding movements of the bowels that we are apt to neglect this duty. These things furnish additional reasons why we should recommend the flushing process oftener than we do.

Thirty-six years ago, when I first came to Illinois, many country people were so barbarous that they did not have out houses. There was great suffering among the women owing to this lack. However, it was generally their own fault. I knew one intelligent woman, 70 years of age, who said it was vulgar and indecent to have a back-house. I think she would have lived to be 100 if she had had correct views on the above subject.

Flushing the colon is especially useful for enciente women, as it obviates the necessity of straining at stool, thereby preventing danger of abortion and promoting the general health. Some people, including physicians, say that the treatment should not be much employed, because the patient would get so in the habit as to create a necessity for it. I will answer that I know it so frequently cures constipation that the person can do without it a long time." - Dr. Silas Hubbard, MD, in "The Medical Summary", Vol.13, 1892.

Hot Colon Douches for Pelvic Pain

"The patient is to lie on the left side, with the left arm behind the back, legs partly drawn up, hips on a pillow or folded blanket, the chest low; in short, in the Sims position.

The position allows the patient to administer the injection with the right hand. The patient might better lie directly on the face with a folded blanket or pillow under the thighs.

The water is to be of a temperature of not more than 44 degrees C, nor less than 41 degrees C. From a pint to two quarts of the hot liquid should be slowly injected, and

retained for a few minutes. If there are faeces in the rectum, as is usually the case, the injection and the faeces will be quickly ejected. Then at once have the patient lie down, and repeat the injection, using a larger quantity the second time.

This will be retained longer, and will almost certainly relieve the pain. When this is expelled the patient should lie down again, and about a pint of hot water injected ; this will be retained if the patient lies quiet, and it will be discharged from the system through the kidneys. If the patient is at all weak it is wise to administer a stimulant before giving the injection." — Dr. W. E. Forest, MD in "Medical Record", The Medical Summary, Vol.13, 1892.

The Colon Douche

"In your November issue I noticed an article from the pen of Dr. Forest on "Hot Colon Douches for Pelvic Pains". Now I consider his treatment, as far as given, excellent; but the Doctor is far too brief in his instructions of procedure.

He should take into consideration the fact that not one physician in 50 has ever had any experience with the colon douche, and that it is a difficult matter to properly administer it, although the Doctor seemed to think that even the patients themselves could properly perform the feat.

Now, to get the full benefit of a colon douche, the ileo-caecum, and the entire colon thoroughly flushed.

I am a firm believer in the efficacy of the colon douche and use it frequently, not only for pelvic pains, but for all diseases arising from inertia of the lower bowel, such as dyspepsia (especially of the lower bowel), chronic constipation, chronic diarrhoea, chronic dysentery; and sometimes you will get prompt response in even the acute forms of these diseases, some forms of melancholia, chlorosis, anemia, gastric disturbances and many others will receive material benefit from its proper use. I can not do better than quote from a very able paper from the pen of Dr A. L. Monroe, of Louisville, Ky., and read before the American Association of Orificial Surgeons, at their annual convention in Chicago, 5 September 1890:

> *"The technique of its use is about as follows: A teacup of salt is poured into a gallon of hot water, which loses about 10 degrees of heat enroute through the tube. The patient is placed upon the left side, with a pillow under the hips, or in the knee-chest position; the tube is greased the whole length, and the tip introduced into the rectum; it is then gradually inserted, and about 2 bulbs-full of water introduced to each inch of progress, until the whole length is in the bowel."*

(Al though my experience has demonstrated to me that one-fourth of that amount is amply sufficient; and with the less amount you will meet with less revulsion).

> *"By this time the salt water is about exhausted and the large bowel distended its whole length to its full capacity. The patient by this time is suffering from severe griping. This can be modified by turning the patient over, face down, to his right side, and having him retain the water as long as he can without severe suffering. During the hour following he has several profuse discharges, which seem to be less debilitating than those following catharsis.*

These Injections Are Useful:

1. In orificial surgery, where it is not desirable for the patient to have an action for from 3 to 3 days after the operation; in those cases two should be given before, and one after operating, the first 2 days previously, the second early in the morning of the same day, and the last from 3 to 7 days after operating, depending upon its nature.

2. Colons that are chronically impacted, lined with indurated faecal matter, like an old stove when the ashes of many winters form clinkers on its sides that have to be

chiseled off. These impacted colons present a small canal at the side or in the middle of the impaction, through which the faeces must pass, and such patients always have to liquify their stools by drugs every time they obtain an action.

3. In chronic catarrh of the large bowel, exhibiting symptoms of chronic diarrhoea or dysentery, or by the free discharge of mucus with the Stool, even though they consist of hard, round balls.

Precautions

The rectum should not be filled too full to start with, as it will produce urgent desire to stool too soon, and the injection cannot be completed satisfactorily. The treatment should be applied on an empty stomach, or nausea and vomiting will be apt to be induced. It is well to avoid too full an injection at first. My plan is to use about three quarts the first time, and gradually increase to the full capacity of the gut. My first 2 injections are given at intervals of 3 days, and about 4 succeeding ones at weekly intervals. The treatment seems to improve the whole patient when it is indicated.

The complexion seems to clear up, weight increases, the bowels that were asleep are awakened to new life and energy. Melancholy patients become more cheerful, for you know the colon is thought by many to be the place to hunt for the etiology of melancholy. The whole circulation of the primae viae improves, and nutrition is, of course, affected in a like degree. When catarrh exists, such drugs as pinus canadensis or hydrastris can be substituted for the salt.

The good effects of the treatment may often be augmented by the free use of hot water by the mouth during the continuation of the treatment, especially the day and night before each injection, thus flushing the waste-pipes all over the body - skin, kidneys and bowels; for I believe such patients as this treatment benefits are often the subjects of a sort of chronic septicemia, due to the constant reabsorption of effete matter that is not excreted fast enough." - Dr. C. C. Edson, MD in "The Medical Summary", Vol.13, 1892.

Chapter 2

Colon Hydropathy Statements in Evidence

"But I believe that many patients with intestinal disturbance, who have not responded to drug treatment, have responded to colonic irrigations with simple saline solution when every thing else has failed" - Dr Louis J. Hirschman, MD Detroit in "The Journal of the American Medical Association", Vol. 55, 1910.

"The average physician is not uncommonly ignorant as to the indications and contraindications in the use of colon irrigations. Many physicians prescribe them as thoughtlessly as they would an enema. Knowledge in this field, as in any other, comes only with study, experience, and reflection." - Dr James W. Wiltsie, AB, MD in "Chronic Intestinal Toxemia and Its Treatment", 1938.

"The need for bowel sanitation and cleanliness has been sadly neglected by nearly everyone." - Dr Bernard Jensen, DC in "Guide to Better Bowel Care", 1999.

"Lockwood reports the case of an unmarried woman, 48 years of age, who had been obstinately constipated for 32 years, only obtaining relief with the aid of large doses of laxatives or huge enemas. There was gastroptosis and coloptosis. Digestion was normal. Irrigations with oil at intervals of 5 days brought about a perfect cure. Of the methods of diagnosis, the most important consists in the introduction of water into the colon, note being taken

whether this is difficult, whether the normal quantity can be introduced, and whether it is expelled with normal force.

If the expelled fluid contains mucus, and a catarrhal condition is thus indicated, bulky foods should not be employed. The colon should be inflated with air in order to detect abnormities of position." - in "The Philadelphia Medical Journal", 1898.

"Dr. Judson Daland, of Philadelphia, read a paper entitled Constipation as a Cause of Anaemia and Chlorosis. He stated that colonic washings often proved that faecal masses remain in the colon for days, or even weeks. One of the most important of the many baneful effects of constipation is the poisoning of the system by absorption from the intestine of the products of putrefaction. In one class of these cases, there will be indicanuria, moderate anaemia, and severe and persistent headache. In another class, the constipation will result in such profound changes in the blood as to give rise to a clinical picture closely simulating that of pernicious anaemia. In one case of this kind, the presence of such substances as indol, skatol, cadaverin and putrescin was demonstrated. Possibly in the future the physician may be able to classify cases of constipation according to the special poison found to be present, or dominant.

Dr. Daland then spoke of the advantages to be derived from the use of enteroclysms, which had been demonstrated to reach as far as the ileo-cecal valve, and hence must be exceedingly useful in cleansing the bowel. In administering them, saline solution at a temperature of 38 C." - in "The Philadelphia Medical Journal", 1898.

"An article, by Dr. J. Lewis Smith, of New York, on "Intestinal Affections of Children in Hot Weather," is a valuable addition to the volume. The terrible mortality among young children from diarrhoea during the summer months, is one of the most remarkable features of the death returns in all our large cities. The entero-colitis which is responsible for a majority of the deaths, does not seem to be directly due to great heat, but the cause must be looked for

in that state of the atmosphere engendered by heat where unsanitary conditions prevail. What the nature of the agent is has not yet been determined; the mycotic theory has not been proved.

That diet is an important factor in the disease, every physician is aware.

Cholera infantum, the most severe and acute form of the summer complaint, still awaits, like the cholera morbus of adults, a suitable explanation of its phenomena. Dr. Smith combats the view that it is identical with thermic fever, and believes it to be of an inflammatory nature.

The treatment of these affections is considered very fully, and the reader will find an interesting discussion of the question of infant feeding, which has so important a bearing on the prevention of these complaints.

Dr. Wales, of Washington, has contributed an article on that curious affection which is more common than the text-books state, viz., "Pseudo membranous Enteritis."

The view taken of the origin of these membranous exudates from the muciparous glands (Lieberkühn's) of the large bowel, is undoubtedly the correct one. We have seen the greater portion of the colon covered with just such a tenacious coherent membrane. Woodward's account of the disease in the Medical and Surgical History of the Rebellion is most excellent, particularly in the historical and anatomical details. Oddly enough, it is not referred to in this article.

The connection of the affection with hysterical and nervous trouble remains inexplicable. Dr James T. Whittaker, of Cincinnati, contributes an important series of articles on "Dysentery, Typhlitis and Perityphlitis, Intestinal Ulcer, and Hemorrhage from the Bowels."

The admirable historical sketch which prefaces the account of dysentery reminds us what an important part this disease has played in all ages, and in the great wars of the world its victims have numbered more than those slain in battle.

The Civil War furnished American physicians with unexampled opportunities for the study of the disease, and

resulted in the publication of the most extensive work on the subject ever published (second volume of Medical and Surgical History of the War of the Rebellion), which, as Dr Whittaker justly remarks, is a lasting monument to the labour and learning of its author, Joseph J. Wood ward.

Our knowledge of the etiology of the disease is in a most unsatisfactory state, and "the prospect of reconciling the accumulated discordant facts is very discouraging."

The evidence in favour of contagion is, in some cases, too strong to be ignored, but the existence of a specific germ has not yet been determined, and it is held that at the present time dysentery must be regarded as a malady which stands in closer relation to, or finds a better analogue in, cholera than typhoid fever." In the treatment of this most painful disease Irrigation of the Large Intestine and the thorough flushing out of its contents seem the most natural plan." - in "The American Journal of Medical Sciences", January 1886.

> *"When the case originates from intestinal irritation, we would earnestly recommend that the first remedy should be an enema, consisting of 750ml or 1 litre of warm water, very slowly and gently forced into the bowels." - Dr John Forbes, MD, FRS, Physician to the Queen Household, in "The Cyclopaedia of Practical Medicine", 1845.*

> *"The rectum should be evacuated daily, and this plan continued until the healing of the wound is far advanced. The idea is to procure almost involuntary movements, and excite the action of the sphincters as little as possible, rest being essential to the healing of all wounds, abrasions, and ulcerations. The object of using the douche as hot as consistent with the feeling of the patient, is to obtain the benefits that are derived from hot water irrigations, by which, it is well known, the capillary circulation is stimulated, irritability subdued,*

and the reparative process favoured." - Dr William Penn Agnew, AB, MA, in "Proctology", 1922.

"The next danger is due to the secondary enteritis and toxemia, which are present to a greater or less degree in all cases of intussusception. If opium is systematically employed, the enteritis is aggravated, and the toxemia accentuated. It is better to give a mild laxative, and to follow' it with astringent intestinal antiseptics, and bowel irrigations. Under such management the condition will improve." - Dr Edward W. Peterson, MD in "Medical Record", 4 March 1905.

"Snyder & Fineman in "American Journal of Roentgenology", Jan, 1927 states that:

Since adding Colonic Irrigations to the older forms of therapy in subacute and chronic arthritis, the clinical results have definitely improved. Also its use has increased our knowledge not only of the pathology of the colon itself but of other abnormal states arising therefrom. And that it is also becoming a routine measure in certain very intractable conditions such as arthritis and colitis was strikingly shown at the 7th Annual Physiotherapy Congress held in Chicago last fall which I had the pleasure of attending.

Many Roentgenographic plates of the colon were studied and the desirability of Colonic Irrigation was graphically shown and discussed by well known medical doctors including Gutman of New York, and Pope of Louisville.

This is shown by the application of Colonic Therapy by Pemberton of Philadelphia in the treatment of arthritis and the remarkable results obtained by Cotton, Draper and others in their treatment of the insane. The writer was recently informed that in a series of a hundred autopsies performed at one of the state hospitals lesions of one kind or another were found in the gastrointestinal tract in 99 of these cases, while only one was found in the brain.

A large majority were found in the colon. My own experience in the treatment of neurasthenic cases which goes back 23 or 24 years to the Battle Creek Sanitarium some form of colon flushing or irrigation has always given satisfactory results. In recent years with the aid of bacteriological examination of the faeces and Roentgenoscopic studies, putrefactive states and intestinal stasis have almost invariably been disclosed in these cases. In a recent issue of the American Journal of Raentgenology and Radium Therapy there is an article entitled "A Clinical and Roentgenologic Study of High Colonic Irrigation as Used in the Therapy of Subacute and Chronic Arthritis", by Snyder and Fineman of New York.

Doctor Snyder states that for 12 years he has been particularly interested in the study and treatment of arthritis. Up to 4 years ago he employed all the well known and accepted forms of physiotherapy in its various branches. In addition the general application of diet, hygiene, etc., were used. He believes that under unfavourable circumstances the gastrointestinal tract may serve as a focus of infection.

Since the recognition of this factor he has for the past 4 years used high colonic irrigations and finds that since the employment of this therapy there has been a definite improvement in clinical results.

It is interesting to note that Doctor Lockwood's first attempt to irrigate the colon was made in 1899 with a long stomach tube introduced through the rectum.

I am quoting from Snyder as follows:

"A number of other factors which enter into any system of irrigations must be carefully weighted and properly evaluated. Instead of a few irrigations given at irregular intervals by inexperienced individuals the author now insists before beginning treatment that the patient submit himself to a minimum course of 20 to 30 irrigations given in a routine manner by experienced technicians.

As a rule a minimum period of 4 to 6 weeks of intensive

irrigation treatments in addition to the fullest use of every other means of treatment indicated is required in most cases before any appreciable clinical improvement becomes apparent. Following the addition of this form of treatment to the older well known therapy of the disease, the clinical results have been definitely improved.

The following is the summary of the roentgenologic studies of this series of cases which were performed by Fineman: A combined clinical and roentgenologic study was undertaken 'for the purpose of discovering, if possible, the factors responsible for the clinical improvements obtained." - Dr E. S. Barghoorn, Dayton, MD Ohio in "Colonic Therapy its Relation to Medical Practice", American Journal of Physical Therapy, Vol. 7-8, 1930.

> *"Drown in an unlucky (or lucky) moment massaging the abdomen of a toxic patient, the cause of whose toxicity he suspected might lie in the colon was so impressed with the result that his 'ergo propter hoc' changed the whole course of his life. After a few similar experiences he gave up a happy lucrative practice, and until he died spent his life in massaging abdomens and irrigating colons, believing he had discovered the cause of many acute and most chronic ills." - in "American Journal of Physical Therapy", Vol.7-8, 1930.*

"Dr Chalmers Watson (Edinburgh) a septic focus in the teeth, sinuses, tonsils, prostate gland, or gastro-intestinal tract might be the cause of common remote systemic disorders the work of Rosenow was of great value in helping to explain the mechanism of its production.

For many years the speaker had taught that diseases of the nervous system, such as disseminated sclerosis and many acute and chronic mental diseases, took origin in a septic focus in the gastro-intestinal tract, including the gall bladder, or elsewhere, this being most frequently a secondary development from sepsis in the mouth.

In this connexion it was a further hopeful sign that attention was now commencing to be given to the important subject of the cleansing of the colon.

More attention should be directed to the examination of the stools and urine as a guide to the diagnosis and treatment of many general and mental disorders. The use of the senses of sight and smell in the case of the stools, after the repeated use of a Plombieres douche, was the main essential. Healthiness of the mouth, bowel, and urine must be secured. The excessively putrefactive condition of the stools which was apparently accepted as normal today could be proved to be abnormal; it indicated a profound disturbance in the balance that normally obtained between the bacteria in the bowel and their host.

Restoration of the normal balance, quantitatively, was of great value in treatment, in proportion to the stage in the disorder at which it was applied. The surgical removal of a localized septic focus, dietetic measures directed to improve the condition of the intestinal flora, lavage of the colon, if thorough and combined with vaccine therapy, deserved more attention.

According to Dr. Ford Anderson, the one medicinal remedy on which Lord Lister placed any reliance was Epsom salts.

To lay stress on the importance of sepsis as a cause of mental and other disorders was not to minimize the part played by such an important factor disturbed conditions of nutrition, such as calcium or iodine deficiency." - in "The British Medical Journal", 5 March 1927.

"Colonic Irrigations are of value in some cases of so-called toxic myelitis." - Dr T. H. Weisenburg, MD and Dr B. J. Alpers, MD in "Physical Therapy in Nervous Diseases", Principles and Practice of Physical Therapy chapter 16, 1932.

Injections or Clysters

"Injections or Clysters are certain liquids thrown into the rectum by mechanical means. To prove effectual, a large quantity should always be given. Few are aware of the great benefit and efficacy of Injections or Clysters.

They often prove a sovereign remedy for diseases which nothing else will relieve. The syringe is very useful; also in strangulated or incarcerated hernia or rupture, bilious colic, dysentery, cholera morbus, and bowel complaints generally.

Cholera Infants
Summer or Bower Complaints
(Cholera Infantum)

Treatment: If called to prescribe for this complaint when there is vomiting, the first object is, to allay it; and this may be done by the exhibition of the neutralizing mixture, as in cholera morbus. In this complaint injections or clysters are exceedingly valuable; they have a soothing and emollient effect upon the intestines; allaying pain and inflammation in a very remarkable manner. One may be administered whenever the child is very fretful and distressed.

Dysentery (Dysenteria)

"This is an affection or inflammation of the alimentary canal, characterized usually by nausea, pain, fever, tenesmus, with fetid or bloody evacuations. It is attended with more or less fever, and is sometimes contagious. Other means, however, are sometimes necessary to remove the disease. After this preparation has acted upon the bowels there may still be inflammation and irritation in the colon, which require other means to subdue them, and the most powerful are injections or clysters.

Bilious Colic

The liver and stomach are sometimes in such a very

torpid state, that even these active cathartics are insufficient to evacuate the contents of the intestines. When this happens, clysters or injections become the anchor of hope, or the only alternative.

This doctrines have guided my practice many years, and experience has taught me not to distrust their truth, safety and value." - Dr W. Beach, MD in "American Practice", 1851.

Clysters and How To Use Them

"Some of the many kinds of "injections" which are of value to the physician. How they may be prepared and administered in properly selected cases.

"Clyster: A fluid substance injected into the lower intestines by means of a syringe; an injection; enema."

The objects of enemata are the removal of faecal or other irritant matter, to cleanse the lower bowel, or to supply nutrition. In the use of clysters, or enemas, I have used many kinds, and I cannot say that I favour any special method or kind, as each case must be treated according to the condition existing.

Method of Giving an Enema

Enemas should be given with a fountain syringe, except where a very small amount of fluid is used.

The dorsal position is the most favourable for all injections, with the hips elevated when it is desired to reach the upper portion of the colon. Some physicians prefer that the patient lie upon the left side, and there is no objection to this position.

The temperature of the fluid used varies, some advising cold, others as warm as can be borne, and others again use a tepid or body temperature for enemas. It is claimed that peristalsis is greater where cold water is used, but there is objection to this where there is a weak constitution and a liability to shock. I use enemas of tepid or body temperature for all clysters, relying upon some added substance to

induce action. I would suggest that the temperature be at least that of the room, not to exceed the body-temperature.

Thus used I have found the results better in every way. It is not altogether an easy matter to give an enema correctly, and should not be left to inexperienced persons to administer. The modern precaution of antisepsis should be strictly observed. The quantity of fluid used plays an important part and has much to do with the results.

It will be observed throughout this article that a small quantity is generally advised; however there are exceptions. It will be found that the patient will retain a small quantity, and there is not the danger of dilating the bowel, thereby causing a relaxation and hence failure to respond. In the treatment of constipation by colon irrigation, we find as many conditions as we have medicated clysters to use, and we change from one to another until results are obtained.

I believe that much harm is done by a lack of knowledge as to the drugs used; too much of somebody's say-so is taken and not enough studying of the individual cases.

A careful study should be made of the quantity used, the temperature of the fluid, the mode of administering, and the time when best to use. This may seem unimportant to many, but success will depend largely upon these suggestions.

Colon enemas are of value in many cases, at least when the obstruction is found in deeper parts of the large intestine, especially in intestinal invagination or when an abnormally large sigmoid flexure has become kinked and causes obstruction; even if the obstruction is in the small intestine, irrigation may be of some benefit by arousing peristalsis. In general it will free the colon of any faecal matter. If it is desirable to reach the upper part of the colon the amount of fluid must be increased to 500ml to 1 litre or more.

Enemas which Increase Peristaltic Action Irrigation produces increased peristalsis by stimulation; and this action can be further increased by lowering the temperature.

Oil Clysters and How to Use Them

Oil clysters, to which renewed popularity has recently been given by Kussmaul, are to be recommended. For these the apparatus used is the usual irrigator when a large quantity of oil is to be injected. From 340 ml to 450 ml of sterilized olive oil at body temperature is injected under very low pressure, so that the process takes about a quarter of an hour. The oil may not act for several hours and then not until a water enema has been given. The bed should be protected by a rubber sheet.

The oil here acts in several ways:

1. It detaches the faecal matter adhering to the intestinal walls;
2. If inflammation is present it reduces pain and helps to induce a movement;
3. It checks the absorption of water;
4. It remains a long time in the bowel and thus is enabled to stimulate peristalsis by virtue of the oily acids split off by the bile and pancreatic juice.

When the oil reaches as far as the ileocecal valve it may be useful in overcoming spastic as well as atonic constipation.

As it takes nearly 24 hours for the oil to be eliminated from the intestines, such enemas should not be given more than twice a week, and discontinued entirely as soon as a permanent passing of loose stools is obtained.

According to Ebstein, 285ml of oil may be given daily for several weeks in succession. One writer claims good results in obstinate constipation from a combination of oil and water irrigations. He takes, first, 3 or 4 tablespoonfuls of tepid oil, one-half hour later 1 litre of tepid water is given:

By the first injection the contents of the bowel are softened and the walls slightly stimulated so that the second injection more certainly induces a movement.

Slow Injections of Lukewarm Water

There are times when the intestines will respond neither to small enemas of cold nor large ones of warm water. Here the following has been recommended: 500ml or 1 litre of lukewarm water under low pressure is slowly injected; this process is repeated for 10 to 15 minutes until the water expelled shows no signs of faecal matter; then the water is allowed to flow out entirely and a glassful of water at room-temperature is injected and retained as long as possible.

If no stools follow the first attempt, this process should be repeated from day to day until an abundant movement has been secured.

Clysters for Intestinal Parasites

In the treatment of intestinal parasitic disease the use of clysters in the hands of some have been beneficial, but only when the parasite occupies the large bowel. In oxyuris vermiformis enemas have been used with good results; these however must be repeated every evening or even twice a day for some time, or until the examination of the stools gives negative results. For these enemas a solution of one-half tablespoonful salt to the litre of water is recommended. I have employed the following Thymol.

Nutrient Enemata

"Nutrient and cleansing enemas are indicated in severe dilation of the stomach and diseases of the digestive tract, in stenosis of the esophagus or of the cardiac orifice, in hemorrhage of the stomach, severe vomiting, and acute inflammation of the intestines. They cannot, however, be used for any protracted treatment, as the digestive power of the intestinal secretion is, as a whole, very weak, and the large intestine absorbs nutriment much less readily than the small." From 230ml to 300ml of nutrient may be given every 8 to 10 hours.

First the bowel should be cleansed with tepid water or a weak saline solution at least one hour before, using from one

pint to one quart of the saline fluid at body temperature.

The nutrient enema should be given at a temperature of 35° C to 37° C, injecting it as high up into the bowel as possible. The patient should be kept quiet for one or more hours afterwards. If he cannot retain the enema, add 5 to 20 minims of tincture of opium. I have never found it necessary to employ more than one cleansing enema a day, usually giving it in the morning. If it is necessary, a second cleaning can be given in the evening.

A Good Nutrient Enema

A favourite nutrient enema consists of a cup of milk, the yolk of one egg and a pinch of salt. Gruetzner says the reason for adding salt to rectal feeding is that it may cause antiperistaltic movements and so carry the food into the upper part of the intestine. Peptonized or pancreatized milk often is used for nutrient enemas. As grape-sugar is easily absorbed from the rectum, it is recommended as a nutriment; one tablespoonful may be added to any nutrient enema. When prescribing rectal enemas I usually start with 230ml, and if retained, I gradually increase the amount to the limit of endurance. The larger the amount of nutrient used the less the thirst of the patient.

Rectal enemas are employed for purposes other than those of nourishing and relieving constipation. Thus in gastric disease when the stomach is seriously impaired (e. g. cancer) the supply of water can only be given by way of the rectum. For this purpose 250ml to 500ml may be injected 2 or 3 times a day.

Further, enemas of water are recommended in acute infectious diseases and obstructed kidneys to reduce temperature and remove toxins from the blood. In the same manner the volume of blood is augmented in cases of loss of blood or severe drain of diarrhoeas. The giving of any form of enemas should not be left to those who have no knowledge of cleanliness and asepsis." - Dr B. F. Harding, MD in "The American Journal of Clinical Medicine", Vol.15, 1908.

"Antipyretics, which increase the loss of heat, may do so:

1. By causing greater dilatation of the vessels of the skin, and thus allowing a quicker radiation of heat from the body;
2. By augmenting the secretion of sweat: and thus carrying off heat by means of evaporation;
3. They may actually remove warmth from the body, as cold baths, cold affusion, cold sponging, wet packing, cold enemata, or ice to the surface.

Antipyretics are used to lower the temperature when it has risen above the normal, whatever be the cause.

A high temperature may be produced simply by prolonged exposure to heat. This exposure, and the rise in temperature it occasions, seems to induce increased tissue change, and this increase of the tissue change will keep up a febrile temperature, even after the external temperature has fallen.

Such thermal fever is found in warm climates, and in it quinine injected subcutaneously seems to be very efficient.

A high temperature may also occur from specific fevers, as typhus, typhoid, scarlet fever, measles, and acute rheumatism.

The most rapid and powerful antipyretic in such cases is the application of cold by bathing, or sponging; and probably next come large doses of quinine or salicylate of soda.

Enemata are liquid injections into the rectum for the purpose of emptying the lower parts of the bowels when we do not wish to excite the whole bowel, or when we wish to cause as little movement as possible to the patient.

They are also used for the purpose of administering nutriment when the patient is unable to swallow or to retain food given by the mouth. In using enemata for the purpose of inducing action of the bowels the quantity should be considerable, 16 fluid ounces, or even more. When they are intended to be retained, the quantity is usually small, not more than two to four fluid ounces at most. In using the enema syringe care should be taken that it is first emptied of

air and that it is not pushed forcibly into the bowel.

The nozzle should not be directed too much backward, as if this be done, and especially if force be employed, ulceration of the posterior wall of the rectum may be induced. Where enemata are given for the purpose of nutrition, a much larger quantity than four ounces may be retained by using the proper method. A nutrient enema may be slowly and gently introduced either by using a syringe or by simply pouring it into the tube by a funnel.

By this method the fluid is introduced into the sigmoid flexure or descending colon, and if the patient can be propped somewhat so as to lie on his left side, none of it may descend into the rectum. In this case there will be little or no tendency to evacuate it and the whole may be readily absorbed.

The enema asafoetidse is perhaps the most powerful remedy we possess in cases of tympanitic distention of the bowels (accumulation gas).

As it is used for the purpose of exciting the contraction of the bowels and the expulsion of flatulence, but not of simply evacuating the rectum, an intermediate quantity is used, viz., 4 ounces. Asafoetida contains a gum as well as a resin, and therefore no mucilage is required to suspend it, and water only is required in preparing it.

If no other medicine be given to cause peristalsis, the salt and the water it has been retaining will be absorbed.

Its action is thus very much like that of a simple enema of water going along the whole intestine, and like a simple enema it produces no depressing effect. Oleum Lini, U.S.P. and B.P. Linseed Oil. Oil of Flax Seed, U.S.P. It is sometimes added to purgative enemata and has been recommended as a cure for piles in the dose of two ounces of the fresh oil morning and evening. Soap and water forms a useful enema for constipation in adults." - Dr T.Lauder Brunton, MD in "A Text-Book of Pharmacology, Therapeutics and Materia Medica", 1885.

"Klebs in the New York Medical Record of 15 December 1894, in explaining his "antidiptherine," which he applies

locally to the parts affected, says: " It is well known to bacteriologists that germs secrete or evolve a poison which is self-destructive to them, that is, they die from the poison which they themselves generate. He says long before the pabulum upon which they feed is consumed this self-destruction has occurred.

At the New York Foundling and the Willard Parker Hospitals very excellent results have been reported by the use of large irrigations of warm salt water. The exudate was removed by this treatment about 2 days earlier than by the bichloride, and 4 days sooner than by oxygen peroxide treatment. In 1893, at the former hospital, the death rate was reduced to 13%, while at the Hospital des Invalides, Paris, the death rate under the antitoxine treatment was 26%." - Dr. Buckman, MD in "Transactions of the Lyzerne County Medical Society", 1887.

The Effect of Enemata

"Dr. Subbotic (Cen. F. Gyn.): Recommendations from different sources induced me to try the effect of clysters in a large number of patients, both male and female, and in many cases it proved to be a prompt and always safe remedy. When I came to look into the causes of failure, I found that in those cases in which its use was followed by negative results, the rectum was free from fecal matter. But when ever the rectum contained faeces, it always produced a prompt and free evacuation. This observation fully agrees with the theory of the modus operandi, namely stimulating the intestine by an increase of the secretions.

This stimulating effect seems to be confined to the lower part of the rectum and its contents, and does not seem to be sufficiently strong to bring the faecal matter down from the higher portions of the intestinal canal, at least while the rectum is empty." - "The Medical Brief", 1890.

"Irrigation of the Colon serves the purpose of either a preventive measure in intestinal disorders or as a curative measure when such have become established, just as lavage

serves this double purpose in gastric derangement. When instituted early for the removal of undigested food particles or indigestible substances from the large intestines, a condition frequently representing the first stages of an attack of acute intestinal indigestion or entero-colitis, the trouble can be promptly checked. In cases where an inflammatory condition has become established these Irrigations are of the greatest service in facilitating the removal of the products of inflammation and decomposition, which invariably accompany the condition and tend to continue the same.

Especially when the stools contain mucus in abundance and are very offensive will Irrigations be of service.

Aside from the cleansing purpose to which high rectal enemata have been made subservient, their employment in shock and collapse is by no means of minor importance. Warm normal saline solution injections are in many instances of as definite value as the operation of infusion, which is by no means a simple procedure and practically impossible in young children.

I have, however, obtained favourable results from the hypodermic injection of the normal salt solution by means of an antitoxin syringe in cases of collapse in infantile diseases, where enemata were not retained sufficiently long to be of benefit, but even in case of cholera infantum it may be possible to do much good by high rectal injections, and they should at least be tried before the last-named procedure is decided upon.

In order successfully to reach the entire length of the large gut with fluid, the child must be laid upon its left side, with the hips slightly elevated, and a soft rubber catheter inserted into the rectum for a distance of several inches. The nozzle of a fountain syringe is then inserted into the free extremity of the catheter, and as the water flows into the rectum, thereby distending it. Having reached this point, the water readily flows into the transverse colon, meeting no obstruction. When a sufficiently large quantity has been allowed to enter the bowels, or as the child begins to make efforts at expulsion, the nozzle of the syringe is removed from the catheter and the water allowed to flow out.

The nozzle is then re-introduced into the catheter and the procedure repeated until the water comes out clear and inoffensive.

The temperature of the water should be about 38 C. and for ordinary circumstances the normal saline solution answers every purpose. Much more could be said in this department of medical science which aims to assist Nature without burdening her with drug action, and also aids drugs by removing causes and influences over which they can exert absolutely no control, excepting to correct avoidable mischief after it has been done." - Dr C. Sigmund Raue, MD, "The Non-Medicinal Therapeutic Measures Indicated in Diseases of Children", Transactions American Institute of Homeopathy 1900.

Enemata

"Enemata are fluid preparations for injection into the rectum. They resemble the misturae in their mode of preparation. And, last, drugs may be applied to the rectum in the form of a suppository or enema either for their local action or for absorption into the system.

Enemata are injections into the rectum, they may be divided into 2 classes:

1. Nutrient, consisting of food material; these should not exceed 3 ounces, and should be injected at body temperature.

2. Cathartic, which also may be divided into 2 classes:

a) The big enema consists of a pint or two of fluid, and acts partly by distension, which induces peristaltic contraction, and partly by softening the scybala. Warm water will produce this effect alone, but the action can be increased by using cold water or adding some irritant substance to the water, such as soap, salt, or turpentine. It is probable that these irritants induce, reflexly, contractions in the upper part of the rectum, to which they never gain access.

b) The small cathartic enema consists of an injection of from 1 to 3 ounces of fluid, and contains colocynth, aloes, or some other irritant purgative. They act much more rapidly than when given by the mouth, usually in from 1 to 3 hours.

Thread-Worms (Oxyuris vermicularis)

Thread-worms which have their habitat in the rectum are best got rid of by means of enemata; an infusion of quassia or a simple salt solution will generally be found quite effective for this purpose." - Dr Walter Ernest Dixon, MD, FRS in "A Manual of Pharmacology", 1929.

The Utility of Saline Enemata in Haemorrhage

"Dr. Warman refers to recent improvements in the treatment of patients bleeding to death, and more particularly to the beneficial results of saline enemata.

The author enumerates the objections to the intravenous and subcutaneous methods, the principal difficulties in the former being the impracticability and the danger in the use of an excessive quantity, and in the latter the slow absorption of the injected fluid. Being unable to use either method in a case of abortion, the author at tempted a rectal injection, which was very successful.

Subsequently he treated 28 patients in the same way, most of whom when seen were much collapsed from post-partum inability of the sphincter to retain the solution. This the author overcomes by placing the patient on one side, allowing the solution to flow slowly and then pressing on the cannula through the vagina. In severe cases this trouble was least frequent, as in these he found absorption to take place most rapidly.

The author recommends the same treatment in all severe hemorrhages, excepting those from the intestine. Therapeutische Monatschefte." - in "Medical Mirror", 1894.

Three Cases of Puerperal Eclampsia

"Dr. F. Spurr, reports 3 cases of Puerperal Eclampsia, all of which ended in recovery. As regards treatment, the chief indication is to eliminate the toxic matter from the circulation or, failing thus, to dilute it as much as possible. In 2 cases he relied on cathartics, but in the 3rd he used copious and repeated enemata with such good results that he will use that method for all future cases. - in "New York Medical Journal", 24 March 1900.

Acute Dysentery, "Bloody Flux", Acute Colitis, Acute Proctitis

"This is a group of acute inflammations of the mucous membrane of the large intestine from the ileo-cecal valve to the anus. The inflammation is mostly catarrhal, sometimes ulcerative. and is characterized by fever, pain, tenesmus and bloody stools. It originates most frequently in this country from errors in diet, exposure to cold, wet and general unhygienic conditions. Since the return of our soldiers from the Hispano-American war we have had added the amebic or tropical form, due to the presence of the ameba coli, in the ulcerations of the colon, stools, etc. Of these the author has had a few to deal with. Another form is caused by the bacillus of Shiga, possessing flagella and motility. In the treatment of these cases rest in bed is an essential, and overexertion on the patient's part is best avoided, the bed-pan being used and all discharges sterilized with chlorinate of lime or ferrous sulphate. The first measure in the treatment of this disease is irrigation of the entire colon by hot water at a temperature from 40 C. to 43 C., to remove any offending food, bacteria or irritative material, which will give the bowel a much needed pest. After this the rectum may be irrigated with cold water (13° C. to 15.5° C.), repeated every 2 hours.

These irrigations will relieve the inflammation, lessen the distension, diminish the stools, decrease the pain and tenesmus and add materially to the patient's comfort.

Hydrotherapy is of unquestioned value. The plan originally suggested by Winternitz, and ably advocated by Strassel, has given the author very great satisfaction, both in acute and chronic conditions. It is the dripping sheet, commencing with a temperature of 27° C. and reducing two or three degrees daily until 15.5° C. is reached, followed by the cold sitz bath (24° C. to 15.5° C.) for 8 to 15, even 20 minutes.

Kellogg suggests the addition of the hot foot-bath during the administration of the sitz, and there is no objection to this, as it will increase the efficacy of the cold sitz and make the patient much more comfortable; its temperature should be from 40.5° C. to 46° C. An important element in the administration of the sitz bath is gentle rubbing to the abdomen during its continuance. The rationale of this is to assist in maintaining tonic dilatation of the surface blood-vessels correlated to the intestines, for its aim is to produce an anemia of the intestine, to lessen secretion and diminish peristalsis.

Where it is not possible to administer the above treatment. the hot dry half pack, given for 30 minutes, followed by the abdominal compress at 15.5° C. for half to one hour, frequently repeated, will often times prove of service. The wet pack, 21° C. to 15.5° C. for 1 or 2 hours, followed by the half bath, will sometimes overcome the marked adynamia that exists in these cases. Where it is desired to stimulate the general vital and resistive powers, the cold sponge may be employed every 3 or 4 hours, as is indicated.

Toxic Headaches

Where due to poisons, demand first cessation of the intake; profuse sweating measures, followed by a general cold tonic treatment, especially the douche. Copious drinks of pure, alkaline waters, to which, if lead is the cause of the headache, the iodides may be added in small doses.

The same treatment is advisable where the headaches are caused by an excess of acids, oxalates, urea, purin bodies, or any waste material due to decomposition and absorbed from the alimentary canal or thrown into the circulation through defective metabolism. Where the toxic headache is due to derangement in the stomach, intestine or colon, gastric lavage to cleanse the stomach of foul or fermenting food, followed by antiseptic irrigation, the moderate use of the enema and the treatment of constipation, in addition to the general management, will prove effective.

Where marked atony or splanchnoptosis is present, the abdominal supporter, the abdominal pack at 18.5° C. for several hours, Neptune's girdle worn during the night, abdominal massage, the sinusoidal current to the abdominal muscles and the Scottish or alternating douche to the spine and the abdominal wall, will in many instances bring about recovery. Reflex headaches, dependent upon ocular, nasal, auditory, pelvic, sexual or other irritations, demand the removal of the cause and such local treatment as the individual condition indicates, with the general nutritional treatment above outlined.

Eclampsia

Should the convulsions be imminent or have commenced, treatment is the same. No solid food is given the patient at all, the only nourishment being iced milk, with the ingestion of water at short intervals where this is possible.

Free catharsis is demanded and one drachm of Epsom or Crab Orchard salts in 6 or 8 ounces of water may be taken every hour until complete liquefaction of the bowel movements takes place. Give hot enemata of normal saline every 3 or 4 hours, regardless of intestinal activity. Hypodermoclysis of one to two or more pints of normal saline or Jardine's solution (potassium bicarbonate and sodium carbonate, drachm one to 500ml) should be introduced at the edge of the breasts or into the abdomen after delivery. It at once promotes diuresis and diaphoresis, and this may be kept up and elimination favoured by the

following: Hot full bath at 4o° C. for 10 to 30 minutes, repeated every 2 to 3 hours. The duration of this bath may be increased each time it is given five to ten minutes until a duration of 30 minutes is secured. It should be followed by the hot full dry pack for one hour. Some authorities have found that continuous irrigation of the rectum with a normal saline solution at 45° C. is a very effective measure.

The treatment above suggested does not in any sense interfere with the usual medicinal measures." - Dr Curran Pope, MD in "Practical Hydrotherapy, a Manual for Students and Practitioners", 1909.

Port Wine Enemata

"Dr. H. L. Williams recommends an Enemata of port wine as a substitute for transfusion of blood in cases of post-partum haemorrhage, and records (British Med. Jour., 4 Sept 1858) a case in which ho successfully resorted to it The patient was in the most alarming state of prostration, pulseless at the wrist, with cold extremities, &c. Dr. W. commenced by administering 4 ounces of port wine with 20 drops of tincture of opium. The patient speedily manifested signs of improvement In half an hour he repeated the Enemata with marked advantage, and the patient was soon out of danger." - in "The Peninsular and Independent Medical Journal", Vol.2, 1859.

"Rectal Irrigations are very effective in some of these patients (Eclampsia), but we must be guided by the individual case in administering them. If considerable edema is present, it is not advisable, as already stated, to introduce any more fluid into the system until what is already there has been taken care of, so that it is better to delay the irrigations until some of this fluid has been drained away through the bowels and skin. We may stimulate the action of the kidneys by Colonic Irrigations,

and these may be started as soon as the bowels have been thoroughly cleared out with enemas. The fluid to be used for this purpose is preferably a normal salt solution.

If irrigations are employed, not less than 15 litres of solution should be made use of and this should be administered through a rectal tube attached to a fountain syringe, held about 2 feet above the patient's head. If the patient is turned on her left side the flushing of the colon will be very much facilitated. The irrigation may be given while the patient is in her hot pack and is, I believe one of the most effective methods which we have of increasing the elimination of toxic materials from the skin, bowels, and kidneys." - Dr George W. Kosmak, MD, in "Eclampsia, How Shall We Treat It Most Effectively in General Practice?", New York Medical Journal, 28 September, 1912.

> *"Right here let me say that I believe in a square deal, a square deal for sick bowels as well as for all classes of men; and I do not think it is a square deal to call on sick, weak, half paralyzed bowels to get rid, unaided, of a load of hard, dry faeces that would necessitate overwork from strong, healthy intestines. So I believe in many cases a good cleaning out with cathartics or enemas is a mighty good first step in the cure of constipation. In obstinate cases I often give several cleanouts during the course of the treatment if I feel that my patient is getting clogged too much." - Dr C. Herbert Church, MD, in "North America Journal of Homeopathy", 1912.*

"In this case we felt the problem confronting us was that of the elimination of toxins; therefore we did not have time to discuss what the toxin might be; this was done by Colonic Flushing, normal saline Murphy's drip, water by mouth drop by drop to avoid vomiting, which had already begun.

Next, food was all that was needed, and by that time Mrs. E. was ready to help us. Physically, the patient's condition is better; mentally, she is very little better." - Dr Israel Bram,

MD, Instructor in Clinical Medicine, Jefferson Medical College, Philadelphia, in "International Record of Medicine, and General Practice Clinics", Vol.113, 19 February 1921.

> *"The application of ice-water cloths over the belly, especially over the course of the lower colon, with half a pint or pint injections of cold water into the rectum. It is amazing to me that so few physicians use cold as a remedy in inflammatory affections. Of all means of cure in such affections, Wherever studied so that the remedy can be applied, there is not one to equal it. In pleurisy, pneumonia, peritonitis, and all other "itis" it is a most efficient remedy. Moderately applied in measles, smallpox, and scarlet fever, no remedy equals it. Think of the one fact that in 60 years, with thousands of children with measles, I never lost one from that disease. In scarlet fever I never had a remedy to equal the application of cold." - Dr Simon Baruch, MD in "The uses of water in modern medicine", Vol. I, 1892.*

Typhlitis, Caecitis, Inflammation of the Caecum, Paratyphlitis, Perityphlitis

"**Etiology**

Isolated inflammation of the caecum is probably an uncommon condition, if it occur at all. On the other hand, typhlitis will be found, as a rule, to accompany enteritis and colitis, and also appendicitis, with the symptoms of each of which its own symptoms are likely to be blended.

Treatment

As constipation is the rule, the bowels are to be moved, and preferably by means of enemata given with the aid of a fountain-syringe. If the constipation prove obstinate, irrigation of the bowel with larger quantities of water may be practiced.

Inflammation of Colon

Cold irrigation reduces temperature, but is depressing after 20 to 25 minutes. Cold irrigation has been employed with success to aid in the reduction of temperature in the diarrhoeas of children and in dysentery." - Dr Augustus A. Eshner, MD in "Annual and Analytical Cyclopaedia of Practical Medicine", 1899.

Inflammation of Colon, Colitis, Catarrh of the Colon

"Excessive intestinal putrefaction occurs in many conditions, especially epilepsy, chronic nephritis, anaemia, melancholia, etc. The amount of ethereal sulphates in the urine is an indication of the extent of fermentation." - Herter, "N.Y. Med. Jour.", 27 Jan. 1894.

"Excessive intestinal fermentation or putrefaction, either from excessive formation of moderately-toxic bodies, or through the temporary appearance of bodies of greater toxicity, may cause various forms of toxaemia. Also anaemia, malnutrition, vomiting, headaches, the so called "biliousness," and many nervous manifestations." - R. N. Chittenden in "Dietetic and Hyg. Gaz.," June, 1896.

"**Treatment**

Besides hygienic measures (massage, Swedish gymnastics) and regulation of diet, laxatives and enemata advised. In many cases irrigation of the bowel, from 3 to 5 times a day with from 1 to 3 quarts of fluid, serves a useful purpose." - in "Annual and Analytical Cyclopaedia of Practical Medicine", 1899.

"Large rectal injections, or injections of sufficient size to wash out the sigmoid flexure and colon, are not

sufficiently resorted to, particularly in those cases of diarrhoea in which a catarrhal element is well marked. Good results are attained if large clysters are given by means of an hydrostatic syringe elevated not more than 18 inches or 2 feet above the rectum. In some instances the water should be tepid, in others it should be as hot as the bowel can stand, and in still others it should be quite cold, the temperature of the injection depending largely upon the acuteness of the inflammatory process and the sensations of the patient. If the water be cold, care should be taken that undue chilling of the body does not result in feeble persons, or if hot, on the other hand, that a mild degree of heat fever is not produced. The success of this treatment depends absolutely, in many instances, upon the gentleness and care with which the injection is given, and the water must be allowed to trickle into the bowel rather than to enter it with any force." - H. A. Hare in Therap. Gaz.", 15 Apr., 1895.

"Cold Irrigation has been employed with success to aid in the reduction of temperature in the diarrhoeas of children and in dysentery.

The temperature at the start should not be below 70° F. In duodenal jaundice cold irrigation (2 quarts) and the alternate hot and cold douche (2 quarts each) have been beneficial.

Renal secretion: in 10 minutes irrigation at the higher temperatures, especially 110° F., stimulates the kidneys to secretion by the heat and by the stimulating effect on the circulation, also by the heated blood flowing through the organs. In 20 minutes irrigation at 110° F. causes excretion from the kidneys actually, through absorption from the intestines.

If it is desired to increase renal secretion without increasing pulse-tension or temperature, one should irrigate at 100° to 104° F., and at 105° to 108° F. if moderate increase

is not objectionable. Intestinal absorption from the large intestine occurs in 20 minutes. Saline irrigation is an excellent remedy in acute uraemic suppression or in cases of renal insufficiency.

Cold irrigation practically inhibits intestinal absorption, on account of the effect on the circulation at the end of 20 to 25 minutes, and therefore should be absolutely contra-indicated in renal disease, as well as the use of cold enemata." - Dr R. C. Kemp, MD in "N.Y. Med. Jour.", No. 1000, 1898.

Acute Laryngitis

"In many cases the local disorder is greatly influenced by general disorders. In female professionals, especially, constipation is almost the rule, owing probably to their irregular mode of living, their varying diet, and the continued travelling in railroad-cars. Purgatives, even mild aperients, are, for obvious reasons, out of the question when evening after evening the sufferer is to appear upon the stage. Enemata, while being immediately effective, present the advantage of not diminishing the patient's strength.

An enema composed of one pint of lukewarm water and a tablespoonful of glycerin will sometimes be found to act surprisingly, not only on the intestines, but on the voice, especially if, as is often the case with travelling artists, the bowels have not been moved for several days. In the treatment of rheumatic disorders of the larynx local measures are practically useless.

Inflammation of the Bile-passages and Gall-bladder

Treatment

A large cold, rectal enema may be given daily; it is said to stimulate contraction of the gall-bladder and ducts and thus promote expulsion of the mucus that is obstructing the escape of bile. The water is to I be retained so as to furnish more liquid for excretion, but it cannot effect that object better than water taken by the stomach.

Severe Haemorrhage

Haemorrhage is of the first importance in the climacteric. Purgatives should be employed, particularly against the hyperaemic disturbances and collateral congestion which give rise to the complex symptoms of abdominal plethora.

No drastic purgative, however, should be used, but only such as exercise a gradual and continued influence upon intestinal activity, such as pulp of prunes, tamarinds, manna, rhubarb, and the moderate salts.

Enemas and intestinal irrigation are also of value, with dietetic and hygienic measures, Glauber salts, and potash-salt waters. In severe haemorrhage rest and cold-water injections are indicated. Kisch in "Med. Neuigkeiten f. prak. Aerzte", 8 April, 1893." - in "Annual and Analytical Cyclopaedia of Practical Medicine", 1899.

Disease in Sigmoid Flexure

"Matthews describes four conditions of disease of the flexure: one, simple irritation due to stagnation of intestinal contents with consequent congestion, which is best treated by giving a brisk aperient and a thorough washing out with warm water. If this treatment does not complete the cure, a mild astringent in water injected at bed time will probably finish the cure. Inflammation of the sigmoid is a somewhat more serious condition. Its treatment also consists of irrigation, mild astringents, and physiologic rest of the part.

All mechanical irritations should be removed by aperient and injections. Then an astringent wash should be employed of warm water deposited in the flexure every night at bed time for a week, constituting the 3rd week of treatment, after which the cure is generally complete. Ulceration of the flexure is shown by casts of epithelium and pus in the stools, constant desire to evacuate the bowels, loss of flesh, pain over the left inguinal region in back and thighs. Matthews thinks a moderate amount of nutritious food is useful.

Moderate exercise every day short of fatigue and special attention to the digestion and state of the bowels are other

measures necessary." - in "JAMA", 8 July 1899.

> *"In Summer Diarrhoeas of children, intestinal drainage should be assisted and diet withheld or corrected. Attacks of Cholera Morbus and other intestinal riots: It should be remembered that Nature is endeavouring to get rid of something which is acting as an irritant, and we should assist her and not paralyse her efforts by an opiate (by so doing we imperil or favour a prolonged illness), and the best scheme of assistance is the use of large quantities of water outside, in form of an all-over bath, and inside from both directions, Colon Lavage (elevating hip of patients) with large quantities of hot water, temperature of water 37° C., frequently repeated if need be." - Dr. I. N. Love, MD in "Journal of Practical Medicine", July 1900.*

Rectal Irrigation

"I am a firm believer in Rectal Irrigation in the treatment of haemorrhoids. If employed early this method will abort them in 99 cases out of 100. It is also a comforting remedy in dysentery, and often aborts an attack in 12 hours. I can endorse all that has been said, for many of the cases referred to were observed in my service at the Woman's Hospital.

In chronic pelvis cellulitis and chronic pelvic peritonitis it will relieve these conditions more quickly than any other known treatment. To treat young girls by this method instead of by the vaginal douche is a good one. I see many cases of congestion of the pelvic organs in young women, a condition which Dr. Emmet taught us to treat by the vaginal tampon and douches where the veins are long and torturous, which I know will be relieved by rectal irrigation.

I hope, that we will all make it part of our future practice to employ rectal irrigation in cases of chronic pelvic inflammation, paralysis of the intestines, and acute nephritis. Within the past fortnight I have treated by this

method 2 cases of acute nephritis.

The first was one of extra-uterine gestation in which I operated. The urine had contained albumen for some time.

On the day following operation the patient passed only 2 ounces of urine. Rectal irrigation was employed at frequent intervals, and the woman recovered." - Dr. Horace Tracy Hanks, MD in "The American Gynaecological and Obstetrical Journal", Vol.15. 1899.

"In referring to the use of rectal irrigation in acute nephritis Dr. Hanks, has touched upon an important point. I was much impressed by its usefulness in this condition a few weeks ago. I was called to see a woman at full term who was suffering from albuminuria. She was under the care of a physician who has a large general practice and a wide experience. Labor was brought on. During the succeeding twenty-four hours the patient passed only 2 and a half ounces of urine. Nitro-glycerine was adminstered and rectal irrigation employed, with the result that during the next 24 hours she passed between 60 and 70 ounces, and a still larger quantity during the succeeding 24, and finally made a good recovery. The physician referred to told me that there was nothing in the Pharmacopaeia which is as useful in his hands with this condition as rectal irrigation, and that he gets better results from it than from anythingelse.

He employs it for an hour at a time, and repeats it several times with an interval of four or five hours between each irrigation." - Dr. Leroy Broun, MD in "The American Gynaecological and Obstetrical Journal", Vol.15. 1899.

"I have nothing to say except to express my approval of the method. It has frequently been employed in my service at the Woman's Hospital and in several cases in my private practice. It seems to be especially beneficial in cases of intestinal paralysis following laparotomy." - Dr Clement Cleveland, MD in "The American Gynaecological and Obstetrical Journal", Vol.15. 1899.

"Rectal irrigation, in acute nephritis, however, its employment is followed by the most beneficial effect. I have employed it in a number of cases of albuminuria following operation." - Dr. A. Palmer Dudley, MD in "The American Gynaecological and Obstetrical Journal", Vol.15. 1899.

"I have employed rectal douching with the most satisfactory results in cases of dysentery also. One case was that of a soldier just returned from Cuba, who was passing blood and in a most deplorable state. Salt-water rectal douching was given him, and he began to improve at once. Our soldiers in Cuba would have suffered less from dysentery had the army surgeons recognized the value of rectal irrigation." - Dr. J. Dougal Bissell, MD in "The American Gynaecological and Obstetrical Journal", Vol.15. 1899.

"Two very grave forms of disease have been spoken of tonight in which rectal irrigation has been found to be of value, via, acute nephritis and intestinal paresis. This would seem to make the method of great therapeutic value. I would very much like to know if it would be of service in the nephritis which accompanies diphtheria in children. This complication presents an almost hopeless outlook. I have never seen a child so affected get well. If rectal irrigation would be of service in these cases it would prove an untold blessing." - Dr George Tucker Harrison, MD, in "The American Gynaecological and Obstetrical Journal", Vol.15, 1899.

Exophthalmic Goitres (Graves disease)

"Intestinal Hygiene: Like the infection admitted by Dr Charcot, self-intoxication of intestinal origin, whose sound indirectly on the thyroid gland was invoked by Dr Vigouroux, may play a role in the production of certain exophthalmic goitres. Where the need to combat intestinal fermentations by ordinary means and, in particular, daily administration of washes of the large intestine, repeated every morning, with fresh water." - in "Manuel de Thérapeutique Médicale", Tome II, 1901.

Typhoid Fever

"Colon irrigation and baths are used as in the former case. Dr Taylor, MD concludes as follows: By promoting digestion and preventing indigestion, and keeping the alimentary tract from the stomach to the anus free from absorbable toxins, we will have no necessity for an aver age temperature of over 38 C, and a pulse of 72 to 80 per minute.

The sum total is, favour digestion, prevent absorption of toxins, and promote thorough elimination of the toxins unavoidably absorbed." - in "JAMA", 23 September 1899.

> *"If the bowels fails to be soothed by these measures and continues its frequent discharge of thick tenacious, irritating mucous stools, which may be more or less blood tinged, irrigation of the large bowel with cold, normal, saline solution will cleanse the bowel, reduce the inflammatory congestion of the mucosa, stimulate the circulation, and lessen the thirst. The irrigation of the bowel with normal saline (2 or 3 quarts) has a tendency, likewise to quiet gastric disturbance, which may consist of nausea, eructations, or actual vomiting." - Dr J. E. Klotz, MD in "Treatment of Acute Dysentery", New York Medical Journal, 1909.*

"Bottle fed babies furnish 9/10 of the infant mortality. Therefore I lay much stress upon the care of these babies;

nursing should be imperative as the ideal infant food, and interdicted only for absolute cause, as tuberculosis of any organ, epilepsy, syphilis, nephritis, malignant disease, chorea, rapid loss of weight and cachexia, bad milk, and rapid loss of weight of the child, advent of pregnancy, and serious illness. The mother must heed the proper hygienic precautions as to emunctories, bathing, mild exercise, open air life, plenty of sleep, and good habits; avoid all exciting emotions, cease excessive alcoholic drinking and the use of drugs that affect the milk. The bottle fed baby is most susceptible to various gastrointestinal disorders, rhachitis, scorbutus, etc., mainly because of the improper proportion of the proximate principles in bad milk mixtures, and the lack of citric acid, which is precipitated as calcium citrate in boiled milk along with other changes.

Pasteurized milk mixtures prove to me more satisfactory. It is very important properly to feed the child between the ages of 1 year and 7 years, that is not to over or under feed them. The dreaded second summer causes many deaths due to ignorance or carelessness of the parents. It is better if the nursing child can be weaned during the winter, early spring, or autumn months. I usually add 3 to 4 ounces of cereals to the feedings at the 8 month and gradually increase them after the first year I allow 5 meals.

The child should be allowed light exercises in the open air, daily bathing, care of the Emunctories and take other hygienic precautions. At the time of teething, properly fed children rarely suffer any symptoms. If present, I get great relief for them by the use of high colonic irrigation." - Dr Hyman Goldstein, MD, in "New York Medical Journal", 27 May 1911.

"Irrigation of the Colon is so valuable in the treatment of various disorders." - Dr M. Ernest Jutte, MD, in "Chronic Ailments, A Preliminary Report of Results in Asthma and Pernicious Anemia", New York Medical Journal, 16 March 1912

Treatment of Chronic Disease

"Taylor emphasizes the necessity, in the management of chronic affections in general, of raising to their highest efficiency all the functions of the body through the practice of what he terms "reconstructive personal hygiene."

This comprises such measures as the attainment of mental and emotional rest, diet, skin friction and bathing, colonic irrigations, systematic education of the respiratory function, massage, and elastic support of relaxed structures.

The possibilities of a combination of such measures lie in rendering available latent, undeveloped energies in various parts of the organism and thereby aiding the body to resist the inroads of the chronic disease present, whatever be its seat." - New York Medical Journal, 6 April 1912

"The treatment of intestinal stasis and spasm consists in resorting to rectal enemata, containing soap, turpentine, alum, castor oil, glycerin, etc., in combination or singly, or the use of large, continuous, saline rectal irrigations, with or without essence of peppermint added. Strychnine aids the weakened patient; atropine, in large doses, inhibits abnormal spasticity; turpentine stupes and mustard pastes applied to the abdomen reflexly favour return of normal peristalsis." - Dr Waters F. Burrows, MD, in "Postoperative Intestinal Stasis and the Intraabdominal use of Oil", Medical Record, 1 November 1913.

"Whether one elects the conservative or the radical plan of treatment, there is one point upon which all agree, and that is the active elimination of the poison by the bowels, skin and kidneys. This is accomplished by hot packs, hot baths, cathartics, colonic irrigations, etc." - Dr George L. Brodhead, MD in "New York State Journal of Medicine", 7 July 1914.

Tympanites

"Tympanites is a complication fraught with much danger and calls for energetic treatment. An initial purgative of castor oil, followed by a few drops of the milk of asafetida by mouth, the careful manipulation of the diet, the temporary exclusion of milk, substituting animal broths, colonic irrigation followed by a high enema of the milk of asafetida, turpentine stupes, or the application of a Priessnitz compress with a possible hypodermic injection of one dose of atropine, grain I/300, are a combination of manoeuvres well calculated to overcome the difficulty." - Dr H. Lowenburg, MD in "Pneumonia in Children", New York Medical Journal, 28 Sep. 1912.

Uraemia

"**Uraemic Symptoms:** Even before marked manifestations are present there may be extreme restlessness, mental wandering, a heavy, foul breath, and a coated tongue.

Headache is not often complained of, though intense frontal headache may be an early symptom of uraemia. In this condition, too, the patient may complain of palpitation, feelings of numbness, and sometimes nocturnal cramps.

For these symptoms the saline purgatives should be ordered, and hot baths, so as to induce copious sweating. Grandin states that irrigation of the bowel with water is most useful.

Infantile Convulsions (Eclampsia)

Convulsive seizures similar to those of epilepsy are not infrequent in children and in adults. The fit may indeed be identical with epilepsy, from which the condition differs in that when the cause is removed there is no tendency for the fits to recur. Occasionally, however, the convulsions in children continue and develop into true epilepsy.

Etiology

A convulsion in a child may be due to many causes, all of which lead to an unstable condition of the nerve-centres, permitting of sudden, excessive, and temporary nervous discharges. The following are the most important of them:

1. Debility, resulting usually from gastro-intestinal disturbance. Convulsions frequently supervene toward the close of an attack of enterocolitis and recur, sometimes proving fatal. Morris J. Lewis has shown that the death-rate in children from eclampsia rises steadily with that of gastro-intestinal disorders.

2. Peripheral irritation. Dentition alone is rarely a cause of convulsions, but is often one of several factors in a feeble, unhealthy infant. The greatest mortality from convulsions is during the first 6 months, before the teeth have really cut through the gums. Other irritative causes are the overloading of the stomach with indigestible food. It has been suggested that some of these cases are toxic, owing to the absorption of poisonous ptomaines.

Treatment

Every source of irritation should be removed. If associated with indigestible food, a prompt emetic should be given, followed by an enema. The teeth should be examined, and if the gum is swollen, hot, and tense, it may be lanced; but never if it looks normal. When seen at first, if the paroxysm is severe, no time should be lost by giving a hot bath, but chloroform should be given at once, and repeated if necessary. A child is so readily put under chloroform and with such a small quantity that this procedure is quite harmless and saves much valuable time.

The practice is almost universal of putting the child into a warm bath, and if there is fever the head may be douched with cold water. The temperature of the bath should not be above 95°F or 96°F. The very hot bath is not suitable, particularly if the fits are due to indigestion. After the attack

an ice-cap may be placed upon the head.

Cholera Asiatica

Medicinal Treatment: Irrigation of the bowel (enteroclysis) with warm water should be used.

Constipation

Constipation is not uncommon in convalescence and is best treated by enemata.

Chronic Diarrhoeas

In a large group of the chronic diarrhoeas the mischief is seated in the colon and is due to ulceration. Medicines by the mouth are here of little value. The diarrhoea is best treated by enemata.

Yellow Fever

Washing out the lower bowel is very advantageous, and in the cases with extreme toxaemia the subcutaneous or intravenous injection of saline solution may be tried.

Intestinal Obstruction

Symptoms Acute Obstruction Constipation: pain in the abdomen, and vomiting are the 3 important symptoms.

The constitutional symptoms from the outset are severe. The face is pallid and anxious, and finally collapse symptoms supervene. The eyes become sunken, the features pinched, and the skin is covered with a cold, clammy sweat.

The pulse becomes rapid and feeble. There may be no fever; the axillary temperature is often subnormal. The tongue is dry and parched and the thirst is incessant. The urine is high-colored, scanty, and there maybe suppression, particularly when the obstruction is high up in the bowel. This is probably due to the constant vomiting and the small amount of liquid which is absorbed. The case terminates as a rule in from 3 to 6 days. In some instances the patient dies

from shock or sinks into coma. A leucocytosis of 75,000 or 80,000 per c. mm. may be present.

Symptoms of Chronic Obstruction

When due to faecal impaction, there is a history of long-standing constipation.

Treatment

Purgatives should not be given. Thorough Irrigation of the large bowel with injections should be practised, the warm fluid being allowed to flow in from a fountain syringe, and the amount carefully estimated. Jonathan Hutchinson recommends a copious enema given while in the inverted position. held downward, and subsequently in the inverted position. Inflation may also be tried, by forcing the air into the rectum with the bellows or with a Davidson's syringe. It is a measure not without risk, as instances of rupture of the bowel have been reported. Fitz's figures show that in the first 8 years of the last decade there were 33 cases of recovery after injection or inflation in cases of certain or probable intussusception, and 11 deaths. Of 39 cases in children treated by inflation or enemata 16 recovered (Wiggin)." - Sir William Osler, MD in "The Principles and Practice of Medicine, Designed for the Use of Practitioners and Students of Medicine", 1903.

Enemas

"An immediate emptying of the uterus was done under ether, during which the patient collapsed, but was revived by saline enema." - Dr. Pinkham, MD in "The American Journal of Obstetrics and Diseases of Women and Children", Vol.71, 1915.

"The use of enemas is a common practice for the relief of habitual constipation, especially in the variety that has been designated as torpor recti dyschezia. The passage through the colon is practically normal but there is abnormal

distension of the rectum with faecal matter as a result of deficient rectal function. The usual enema is warm and a quart is the average quantity employed. An objection to the continued use of large enemas is that they distend the bowel and thus increase the atony, which we are combatting.

The employment of cold water overcomes this objection, because one-half to one pint at a temperature of 21° to 10° C will stimulate the rectum to action. The cold enemas are particularly indicated when haemorrhoids or bleeding fissures are present." - Dr N. Philip Norman, MD in "International Clinics", 1923.

> *"The wonder is that they have avoided the consequences of their own carelessness so long. If they are at length overtaken in their folly, the true treatment consists in a process of purification. In all cases the bowels should be thoroughly and repeatedly emptied by large warm water enemas. This is especially important in all cases of typhoid." - Dr. Robert Walter, MD in "Vital Science Based Upon Life's Great Law", 1899.*

"Plenty of water should be given by the mouth and subcutaneously, if necessary, to dilute the toxins, and their elimination assisted by the use of diaphoretics, diuretics, and high enemata. Too little regard is, as a rule, paid to the role of the intestines as an excretor, not only of toxin, but of the bacteria themselves; thus it has been shown recently that in pneumonia active elimination of the pneumococcus occurs via the intestinal mucosa. Much good is therefore to be anticipated in bacterial diseases from the methodical flushing of the whole lower bowel with saline enemata." - Dr R. W. Allen, MD, 1913.

> *"Dr. Pantzer spoke of the value of giving saline solution by rectum. Saline solution is of unquestionable value." - in "Transactions of the American Association of Obstetricians and Gynecologists", 1915.*

"In cases of headache due to mechanical causes, particularly from constipation, the relief is almost immediate after taking a cathartic or enema". - Dr. Nathan Rosewater, MD in "JAMA", 27 Oct. 1917.

Hot Water Injections Vice Nutrient Enemata

"Dr. W. Pasteur points out the value of rectal injections of water at the body temperature as a substitute for the ordinary nutrient enemata in cases of gastric ulcer. That by the latter method patients can be kept alive and in comparative comfort for several weeks is admitted. Comfort and relief from pain are prompt, but nutrient enemata also produce certain unfortunate consequences.

One of these is thirst. To permit ice or small quantities of water by the mouth is to lose some measure of the physiological rest prescribed for the stomach. Another consequence of the use of nutrient enemata, at least when they contain beef-juice, is the development of an unpleasant taste beef-juice in the mouth and of nausea. Enemata containing 300ml of plain water instead of the smaller nutrient enemata generally employed avoid the above symptoms. Further, the patients are much more comfortable than under the latter regime, and their recovery is quite as rapid.

As a rule, it is found that small quantities of peptonised milk can be given by the mouth in the course of a week, but in several instances nothing has been given for 10 to 14 days without other than good results." in "The Lancet", 21 May 1904.

Merck's Manual Remedies

"Remedies for Cystitis

Hot Enemata: to relieve pain.

Remedies for Dysentery
(Intestinal Inflammation)

Cold: enemata of ice water to relieve pain and tenesmus.

Remedies for Peritonitis

Enemas, but no cathartics.

Remedies for Typhoid Fever

Enemas: to be tried first if constipation lasts over 2 days; then give daily if necessary.

Remedies for Cancer

Warm Enemata: to lessen pain in rectal cancer.

Remedies for Asiatic Cholera

Enemata: warm salt solution. Enteroclysis, with hot baths.

Remedies for Constipation

Enemata: soap and water, or castor oil; habitual use tends to increase intestinal torpor; should only be used when it is desired to unload." - in "Merck's Manual of the Materia Medica: A Ready-Reference Pocket Book for the Physician and Surgeon", 1923.

Chapter 3

Colonic Cleanliness

"Purgation, being practicable without the aid of the doctor, was almost universally employed as a health-preserving duty. Cathartics were regarded as cleansing agents, and not less important for the alimentary canal, than soap for the surface of the body. An occasional internal "scouring" was supposed to be even of greater importance than a thorough external scrubbing, for while the latter was enforced chiefly on the score of cleanliness, the former had the additional recommendation of being thought to be essential to the welfare of the system." - Dr Austin Flint, MD, Professor of Principles and Practice of Medicine, Bellevue Hospital Medical College, and Long Island College Hospital, in "Conservative Medicine as Applied to Hygiene", The American Journal of the Medical Sciences, Vol. 46, 1863.

Observations and Suggestions Concerning Hypodermoclysis

"Dr. Robert C. Kemp, MD recommends the space between the highest part of the crest of the ilium and the lower border of the ribs toward the outer margin of the lumbar region as the site of election. Dorsal posture is not interfered with, nor do muscular or respiratory movements cause discomfort. Strength of solution, one drachm of sodium chloride to one pint of water. Everything connected with the operation must be aseptic. The specific effect on renal secretion produced by small quantities of normal saline solution appears rapidly. When irrigations were given and

potassium ferrocyanide was added to the solution the urine gave a blue reaction with ferric chloride in less than 2 minutes, and in addition there was increase of urinary flow.

If hypodermoclysis be practised a similar reaction can be obtained in less than 4 minutes, with an increase in renal secretion. Enormous increase of urine may follow small rectal injections frequently repeated.

Small quantities frequently given subcutaneously act as a better diuretic, causing less strain on the kidneys than a pint thrice daily. By thus increasing the urine excretion of injurious substances is provoked, as in acute diseases.

A Saline Enteroclysis 43°C gives the following:

1. An immediate increase in arterial tension. If the temperature of the injection is under 43° C this result does not follow.
2. At the expiration of ten minutes this stimulation seems to reach its maximum point; arterial tension remains then unchanged.
3. Increase of renal secretion begins after 10 minutes, coincident with the increased arterial tension.
4. At the some time there is an increase of blood and body temperature.
5. A second marked increase of renal secretion occurs at the end of 20 minutes enteroclysis, due to absorption from the intestine. In uraemia, shock, etc., lymphatic absorption is nearly at a standstill; even a small hypodermoclysis requires a long time for absorption; in addition there is no stimulating effect from heat.

Saline solution distributed over a large surface, as the peritoneum, either by enteroclysis or enema, has no resistant tension to overcome. There is a wide-spread area for absorption, together with reflex stimulation of the circulation by heat, and, hence, rapid lymphatic absorption.

Thus the action of a hypodennoclysis can be much hastened by a simultaneous hot enema or enteroclysis at 43° to 50°C. In haemorrhage from typhoid and gastric ulcers,

hypodermoclysis replaces fluid. It enters the body slowly through the lymphatic system, and is less likely than infusion to cause an increase in haemorrhage.

Hypodermoclysis is recommended in various forms of poisoning, especially when the drag is eliminated through the kidneys. In pleurisy with effusion, with renal insufficiency, hot enteroclysis may produce sufficient diuresis to absorb the effusion without aspiration.

Then follow recommendations for the use of hypodermoclysis in the colitis of infants, in nephritis complicating diphtheria, with oliguria, in uraemia, and in the preparation for operation of a patient who is suffering from shock. - Medical Record, 1900". - in "The American Journal of the Medical Sciences", Vol. 120, 1900.

Chloride of Sodium

"Chloride of sodium is the curative principle of all the many medicinal baths that are advertised. One pound of salt added to 3 or 6 gallons of hot water gives a seawater or Hot Springs bath at home. In shock it need not from necessity be injected into a large vein, as has been advised, but can be injected into the cellular tissue beneath the skin with good results. Rectal injections often give relief, and are invaluable in the treatment of any disease where there are anaemic conditions. Pliny spoke of the value of salt, Pliny observed its wonderful influence upon grazing animals and appreciated what a great benefit it would be to man.

By mixing salt with various oils it was also used for the stings of insects. It can be used as a wash for sore throat, ulcers, etc. The author has demonstrated to himself and others, time and time again, that lavage with hot salt water and high Colonic Flushings with the same, are a cure for not only acute and Chronic Gastro-Intestinal Catarrh, but many other Anaemic Conditions as well.

He can call to mind many prisoners who were suffering from what is called General Prison Anaemia, that were cured and became fleshy under hot salt-water lavage, Colonic Flushings, and orificial treatments. For the purpose

of treatment the administration by the mouth is not as curative as is the hypodermic method. For incipient phthisis, for acute or chronic pneumonia, and for many chronic diseases with anaemic tendencies a hot solution of chloride of sodium given with a hypodermic syringe will cure when all other methods fail. The strength of the saline solution should depend on the case under treatment.

Nothing but distilled water should be used. A warm solution of salt water may be injected into the cellular tissue of the abdomen 3 or 4 times a day. At first 5 grains of sodium chloride is used for each injection, repeating 4 times a day. The dose can be increased or diminished as required.

Several cases under observation improved rapidly by the hypodermic injection of chloride of sodium. Personal investigations led to the belief that we have a wonderful remedy in the simple chloride of sodium." - Dr B.S. Home, MD in "Cincinnati Lancet-Clinic", 4 July 1903.

> *"Dastre ("Le bulletin médical, Paris", 1 Nov. 1893) advances the belief that injection of saline solutions into the blood may prove effective in the elimination of toxins. Hutchinson ("Montreal Medical Journal", Feb. 1894) reports favourably on the effect of saline enemata in a case of acute anaemia due to post-partum haemorrhage." - in "Annual of the Universal Medical Sciences", 1895.*

Lavage of the Stomach, Colon and Rectum, and Enteroclysis

"The only genuine intestinal antiseptic is evacuation of the digestive tract. Many times the patient himself will have made the first efforts to accomplish this result. But where vomiting and purging have not yet taken place, or where it has been kept up an unduly long time, lavage of the stomach and of the colon should be at once undertaken. Enteroclysis, which means the attempt to force water through the entire

large and small intestines, even if it were possible, is not necessary, because a thorough cleansing out of the colon and stomach by irrigation has proven sufficient.

This gastric and colon lavage is the one therapeutic measure concerning the utility of which there are no dissenting opinions." - Dr John C. Hemmeter, MD, Professor of Physiology and Clinical Medicine, University of Maryland, Baltimore, Md., in "Ohio State Medical Journal", 1907.

Some Colonic, Sigmoidal and Rectal Conditions

"Who stated that the ascending and a portion of transverse colon have to do with absorption of the fluids of the digestive tube. The descending colon and sigmoid are concerned with storing faecal debris. There are changes in the intestinal wall of the descending colon, sigmoid and rectum which are due to the function of these parts.

On account of the stagnation, fermentation and putrefaction in the contained mass, toxins and bacteria, under conditions favourable to this process, pass through the mucosa into the wall of the bowel. The result of this permeation of the wall of the intestine is an irritation, which brings on a round cell infiltration of its layers. This infiltration diminishes the elasticity of the viscus and by its slow but inevitable contraction diminishes its lumen.

This same process of round cell infiltration may attack the mesenteries of these various divisions of the bowel and cause thickening and contraction of them. The main symptoms of this condition is prolonged and intractable constipation, with all its morbid sequellae. After fibrosis has occurred the affected area may be palpated, if the abdominal walls are relaxed. It is needless to remark that all accessible viscera must be investigated, and every other cause of the constipated state must be eliminated. Treatment comes under the hygienic, in which diet and colonic lavage occupies a very prominent position." - Dr. Edwin A. Hamilton, MD, Columbus in "Ohio State Medical Journal", 1908.

"The chyme escaping from the bowel and being retained in the cavity was responsible for the pain. It required quantities of water to cleanse the fistulous tract, but finaly the water returned clear. The immediate effect of the irrigation was the cessation of pain. The next day the patient reported that she had been free from pain for 12 hours and has taken no anodyne since seeing me. However, she had pain for the past few hours but another irrigation promptly controlled it. From this date on all anodynes were stopped, irrigation being resorted to whenever it was found necessary, and the explanation given as the cause of the pain was strengthened by the fact that ***irrigation always brought relief. Under daily irrigations the patient gained in health and strength****." - Dr Herman Grad, MD, in "Intestinal Obstruction", American Medicine, 1902.*

"In the third case, the symptoms were these. A young athletic man was seized first with vomiting, and then with intense pain at the epigastric and umbilical region, increasing upon pressure. The tongue was clean, and the pulse quiet. Several large petechiae were to be seen on the arms, and his legs and thighs were covered with them.

A blister was applied on the epigastrium, and 3 grains of calomel (cathartic) were given every 6 hours, with a saline draught in the intervals. Next day, after the bowels had acted freely, the petechiae began to fade, and the patient was much better. On the following day, some blood was observed in the stools, and, after a turpentine enema, a very large quantity of blood came away. He rapidly recovered.

The history of Dr Thomas Mayo, MD, FRS, and indeed of almost every other, case of obstruction of the bowels, that we read of in the medical journals of the day, only tends to confirm us in the propriety of an opinion which we have for many years entertained; viz. that the treatment which is

generally adopted oftener does harm than good; and that it would be much better for the patient to be left to Nature's unassisted efforts to relieve herself, than to be drenched, as he is almost inevitably sure to be, with repeated doses of drastic purgatives, which only serve (in a very great many in stances) to increase his sufferings and exasperate his disease.

If medical men were in the habit of trusting more to the use of continued hot formentations to the abdomen, and, at the same time, to the frequently-repeated exhibition of purgative enemata, with little or no medicine administered by the mouth, the really remediable cases might in general be promptly relieved." - in "The Medical Chirurgical Review", Vol. 50, 1847.

Recto-Colonic Hydrotherapy

"One is fairly safe in saying that the great majority of those habitually taking laxative drugs began that pernicious practice in trying to relieve what was primarily only a simple prolonged retention of faeces in the rectum, or in the sigmoid colon. Granting that this be so, then, as Alvarez has tritely put it, "Why upset twenty-four feet of intestine with a purgative when the material to be removed is in the rectum or sigmoid within easy reach of a little water?"

An answer to this query is that but few individuals ever consult a physician before their constipation becomes chronic, and so fail to learn that an enema would be the best remedy to relieve their trouble quickly and efficaciously. Moreover, even when so advised, they usually, like all average humans, seek the path of least resistance, finding it far easier to swallow a daily pill which helps to aggravate their trouble, than to bother (as they term it) with an enema —which gives better and far more lasting results, within a few moments, than does the pill in as many hours." - Dr Alfred J. Zobel, MD, FACS, Chief of the Department of Rectal Surgery, San Francisco, Polyclinic and Post-Graduate School; Lecturer in Proctology, Leland Stanford, Jr., University San Francisco, Calif., in "The American Journal of Surgery", Dec. 1921.

Enema in Gastroenteric Diseases

"Charles J. Drueck, of Chicago, Ill., gives a resume of the value of the enema and its proper method of administration in diseases of the gastro-intestinal system. It is in reach in every household, is without danger when given properly, is prompt and positive in its results, and of value when indications are correct. He gives simple enemata of a small amount of cold water in constipation, to stimulate peristalsis. They are better for this purpose than warm ones.

It is of value in reducing temperature; also removes decomposing materials, and benefits the portal circulation.

The hot enema is useful in treatment of pelvic inflammation; it increases blood-pressure, accelerates the heart action, and stimulates the kidneys. It is especially valuable in the treatment of pseudomembraneous colitis. Hot irrigation is useful in inflammation of surrounding tissues, rectal ulcer, spasm of the sphincter, and gynecological diseases. In cholera infantum and cholera morbus the hot enema removes irritation and infectious materials, and stimulates the heart. In colitis and chronic diarrhoea, peritonitis, and typhoid fever it is of value. - Medical Record." - in "The Medical Summary", Vol. 34 1913.

Intestinal Sepsis in Ocular Affections

"The above is the title of a reprint article by Dr. Samuel D. Risley, Philadelphia. The article is ably written and reflects careful study and research on the part of the writer. He takes the stand that many ocular affections, cataract as well as many conditions of lesser severity, are often due to toxemias originating from the intestinal canal or from insufficient renal elimination. Constipation and its consequent autotoxemia, coupled with insufficient food, bad hygiene, poor teeth, etc., are far-reaching in scope, especially in the effects upon the neuro-vascular systems. Ocular blood

pressures and congestions often are either directly or indirectly traceable to the absorption of septic matter from the alimentary canal. It is true that we do not know all about auto-intoxications, but we do know that this is the key that unlocks many seemingly obscure abnormalities.

Many of the affections in children for which glasses are so frequently prescribed would be better met by catharics and salts, good hygiene and wholesome living. Any treatment will prove unavailing if the eyes are still over used and abused. The writer states that he seldom operates for cataract without first having administered cathartics to the patient. He points out the far-reaching drain age, even to the eyes, of thorough elimination from the intestinal canal. Dr. Risley does not operate for cataract until the alimentary canal is freed of its toxic and microbic elements, the urine of normal specific gravity and free from indican, albumin and excessive acidity, and the blood pressure approximately normal.

This salutary state will, according to the author, be rapidly brought about by the daily or triweekly administration of sulphate of magnesia or some of the other alkaline earths." - in "The Medical Summary", Vol.34, 1913.

Chapter 4

The Emunctories Require Attention

"The urine should be studied, and when large, amounts of indican are present, and particularly when the alvine evacuations are lacking in colour or are offensive, it is advisable to employ enteroclysis with a view to cleansing the bowel; hot irrigations two or three times a week have seemed to me of great value.

The importance of appreciating the state of the liver is great. When the toxemia is due to renal failure, hot vapor-baths should be used with frequency until the condition of the blood is improved and the function of the liver has been at least partially restored. When it does not disagree with the stomach, an abundance of pure well-aeriated water should be taken. If specific disease be present, this should receive appropriate treatment as a matter of course.

In cases of advanced anemia the relief should be attempted without too much dependence upon the iron preparations.

True, there are times when iron may be employed with great benefit, but its routine administration is probably undesirable in the condition under consideration. The end can be reached more easily by hygienic measures, together with local treatment of the stomach. The latter measure is scarcely to be omitted in cases of established chronic catarrhal gastritis. Daily lavage should be directed, and it should be practised by a person expert in the use of the tube, so that frequent observations can be made as to the motor activity as well as to the gastric chemistry." - in "The American Journal of Clinical Medicine", Vol.18, 1911.

"One of the most ingenious devices, and which has many uses, is the invention of Dr. Sourwine of Brazil, Indiana. This consists of long tubes, of different sizes, with rectal and vaginal retention plugs. It can be used for stomach lavage, as well as for colon irrigation, and has been worth its weight in gold in this mission station. In smallpox the free use of calcium sulphide and pilocarpine will cure quickly and surely, without trouble, and without the complications so often met with". - A Doctors Life in Spanish Honduras, "The American Journal of Clinical Medicine, Vol. 18, 1911.

"Olive oil irrigations were first employed by Kussmaul, and are generally known by his name in German literature. The results personally seen in Boas clinic and in my own practice have been so brilliant that I am inclined to attach much importance to this form of treatment. In Boas and in Pick's clinics, the patient assumes the knee-chest position.

My modification of this is more agreeable to sensitive patients. The patient receives the injection while in the Sims position, with the hips elevated on 2 pillows, and with the muscles well relaxed, remains so placed for 10 minutes, then the dorsal decubitus is assumed for 10 minutes, after which the patient lies for 10 minutes on the right side, the hips still being elevated. By this method the oil reaches throughout the entire length of the colon.

No immediate results occur, as a rule, and the patient may go about his daily work, although the injection is to be given by preference at bedtime. In the great majority of instances the patient will have one normal movement for 3 to 5 successive mornings without straining.

The action of the oil seems to me to be due to the fact that the intimate commingling of the oil with the faeces prevents all further drying processes, thus markedly facilitating the outward passage of the faeces, and in presenting a greater bulk to the expulsive efforts of the rectum. Pick recommends daily inspection of the stools and a repetition of the injection

whenever the oil disappears from the faeces. It is just as well, however, to rely upon clinical data, and to repeat the treatment whenever the effects of the previous injection have subsided. Ordinarily, every 5 days is sufficient. One great advantage of this method is that it may be used in atonic, spastic, and inflammatory conditions alike.

A successful case of treatment by the oil method is hereby attached. Negligent habits must be corrected, the nervous expenditure and nervous income must at least be balanced, and in almost every case a physical examination of the colon should be made.

A convenient morning scheme for examination and indications for treatment which I can personally recommend, is as follows: The colon is flushed out with normal salt solution, and the wash-water examined If mucus be present, pointing to an intestinal catarrh (excluding nervous forms of membranous colitis), bulky forms of food are to be excluded from the constipation-diet, massage, electricity, and cold abdominal applications are contraindicated, but irrigations may be used with benefit." - Dr George Roe Lockwood, MD in "The Non Medical Treatment of Constipation", The Medical News, 1898.

The Action of the Bowels is Essential to Health

"Evacuation, or the discharge of the refuse part of food through the bowels, is another, and the last step in the process of digestion. This part of the subject has a very important bearing upon the condition of health.

It is impossible for any one to enjoy good health while this office of the bowels is imperfectly performed. No one can possibly be well with costive bowels. The free and easy action of the bowels is as truly essential to health, as the free circulation of the blood.

A costive state of towels often causes a pressure of blood on the brain; also derangement of the nervous system, excitability of the nerves, nervous headache, depression of spirits, and a Iona; catalogue of sufferings, too numerous for

detail. Habitual costiveness impairs the tone of the stomach, and prevents its healthy action. Piles, also, with various degrees of severity, are often caused, directly or indirectly, by constipated bowels." - Dr L. B. Coles, MD in "Philosophy of Health", 1854.

Treatment of Cholelithiasis (Gallstones)

"Blum (British Medical Journal) draws attention to the value of large olive oil injections in the treatment of biliary colic. These rectal injections can be substituted for the large doses of olive oil given by the mouth to which patients often object and which may disturb the functions of the stomach.

In addition to the probable cholagogue action (promotes discharge of bile) of these injections, olive-oil has a slight laxative action. The author follows Fleiner's directions in giving these large enemata; first daily and subsequently at longer intervals. The author gives details of 5 cases treated with benefit in this way." - in "The Medical and Surgical Reporter", 1895.

Autogenous Colon Vaccines in the Study, Diagnosis and Therapy of Chronic Intestinal Toxemia

"The following classification for the use of autogenous colon vaccines (enemas) has been suggested by the author's success in the vaccine therapy:

1) Mild chronic toxemias which do not respond to diet;
2) All severe chronic toxemias;
3) Operative cases:
   a) Before, and
   b) After operation;
4) In doubtful cases, as an aid to differential diagnosis.

There are undoubtedly many cases of primary nervous system lesions in which the gastro-intestinal toxemia is secondary. There is every reason that these patients should have the proper care of the toxemia, even if it is a secondary complaint. The insane asylums claim their share of chronic intestinal toxemias.

As examples, 3 of the patients under consideration for this paper had been declared insane and are now well. One patient, an old lady of 76, with the diagnosis of senile dementia, has had the mental symptoms cleared up for weeks at a time by means of dietetic measures and autogenous colon vaccines, which have had remarkable and lasting results.

Of the 63 cases in which the colon vaccines were used, 16 had successful terminations or were cured, 21 gave satisfactory results, 4 showed doubtful efficiency, and there was 1 absolute failure, probably on account of a very incompetent ileocecal valve. In 2 cases the vaccines were discontinued, one on account of cardiac palpitation and the other on account of persistent headache. In 1 patient with a very severe toxemia and a large hernia the vaccines gave satisfactory results for 1 year and were of no assistance the next year, probably on account of the advanced and incurable condition.

In one patient with a chronic gastritis the colon bacillus was isolated through the stomach tube, and vaccine therapy (Enema Therapy) was very successful. In 6 patients who needed operative procedures, marked improvement was obtained, although a cure could not be expected. Four albuminurias and one severe nephritis of intestinal origin cleared up under vaccines.

Conclusions

1. The predominating factor in the symptomatology of chronic intestinal toxemia is the colon bacillus.

2. In diseased conditions of the colon, the colon bacillus may become very harmful to the human organism by forming and liberating toxins, thus causing a toxemia.

3. This toxemia gives a definite symptomatology called **Chronic Intestinal Toxemia**.

4. Putrefactive organisms often play an important part in intestinal toxemias, but the lasting effects are due to the colon bacillus.

5. In the study and treatment of all long-standing or severe chronic intestinal toxemias, autogenous colon vaccines should be administered in proper dosage.

6. Autogenous colon vaccines are helpful in the diagnosis of chronic intestinal toxemia.

7. The method of action of the colon bacillus vaccine is probably" - Dr G. Reese Satterlee, MD in "JAMA", 9 Dec. 1916.

"Colonic Irrigation when properly employed, colonic washing constitutes a useful therapeutic asset. Indications: Chronic Constipation, it is also indicated in Eclampsia, Summer complaint (intoxication), intestinal parasites, Intestinal putrefaction, Dyspeptic diarrhoea, and in Dysentery. It is one of the most powerful means of reducing high temperature." - Dr Harry Lowenburg, AM, MD, in "A Practical Treatise on Infant Feeding", 1916.

"Dr. J. M. Rector, Columbus, Ohio: Proctologists suggest treatment of colonic and sigmoidal conditions by mouth, forgetting that the nearest direct route is through the rectum, and that all infections follow stasis, and that all colonic disease can be relieved, and elasticity, tone and function of the colon restored by Colonic Irrigation, and elasticity and tone of the colon restored by pneumatic gymnastics. These new methods of treating the colon directly by rectum are simple, but the technic must be understood to obtain results. Colonic Irrigation: The treatment takes only minutes and leaves the colon clean

and empty and the patient relaxed, warm and comfortable." - in "Transactions of the Section on Gastro-Enterology", American Medical Association, Vol.71, 1920.

"I try to classify these conditions into moderate and severe cases of colitis. If a moderate case, I treat it by rest, diet and rectal irrigations. If there are quite a number of stools containing considerable. But putting the bowel at rest and employing frequent irrigation, one can cure a great many cases of chronic colitis which otherwise would end in death." - Dr. Samuel G. Gant, MD, in "Transactions of the Section on Gastro-Enterology", American Medical Association, Vol.73, 1922.

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Intestinal Indigestion

"Many, if not all of the rapidly fatal diseases of the nervous system belong to this grouping. In conclusion, Dr. A.P. Buchman,MD said that any form of treatment instituted for the relief and cure of intestinal indigestion must necessarily include a careful consideration of the stomach and colon; that very little, if any, amelioration of symptoms will result unless they are both rationally included.

Inasmuch as the colon is within easy reach via the rectum, it is the authors experience that colonic baths are immensely useful in the general treatment and care of patients suffering with intestinal indigestion." - in "Medical Mirror", 1894.

Irrigating Solution

"**The beneficent action of through, and through Colonic Irrigation is due almost as much to mechanical action of the fluid in cleansing the inflamed and ulcerated mucosa of irritating faeces, discharges and pathogenic organisms.**

Catarrhal colitis rapidly improves following daily flushing with normal saline but when there is more or less ulceration, haemorrhages and abundant discharge and frequent evacuations stimulating antiseptic and astringent irrigations are employed morning and afternoon until improvement is marked when irrigation once daily suffices.

This method of treating chronic diarrhoea responds more quickly when reinforced by dieting, internal medication, rest and pleasant surroundings, therapeutic measures that usually fail in chronic ulcerative colitis causing diarrhoea except when employed in connection with through and through colonic irrigation." - Dr Samuel Goodwin Gant, MD in "The Ohio State Medical Journal", Vol.18, 1922.

> *"Understanding of the nature of the intoxications that result from changes in the intestinal contents and the relation of the liver functions thereto. Whether one is an advocate or an opponent of the Colon Irrigation as a therapeutic measure, one cannot but profit its study." - Dr Walter A. Bastedo, MD, in "Chronic Intestinal Toxemia and its Treatment. With special reference to Colonic Therapy", 1938.*

"It is true that in all sickness the status of bowel activity is inquired into as a matter of routine, and a laxative or enema prescribed when indicated.

With the exceptions of typhoid fever, the specific dysenteries, chronic ulcerative colitis, diverticulitis, carcinoma, and 1 or 2 other definite entities, abnormal conditions in the intestine are not well understood, either etiologically or in their potential significance. As a logical result, treatment of these conditions is largely symptomatic and empirical.

And just as long as we continue to assume that the colon will take care of itself if only left alone, just that long will we remain in complete ignorance of perhaps the most important source of ill-health in the whole body." - Dr James Wesley Wiltsie, MD, in "Chronic Intestinal Toxemia and its Treatment. With special reference to Colonic Therapy", 1938.

"Colonic Irrigation. Purposes When Given to a Toxic Obstetrical Patient:

1. To stimulate the kidneys to excrete more urine, thus eliminating toxic material.
2. To induce perspiration, thereby aiding in the elimination of toxin.
3. To provide the body with a warm alkaline solution, a part of which is absorbed by the intestines diluting the body toxins.
4. To cleanse the intestines of excess feces or putrefying material." - "Taber's Dictionary of Gynecology and Obstetrics", 1944.

Chapter 5

Chronic Colonic Infections

"During the past 5 years, O. Boto Schellberg has given well over 36,000 colonic treatments. The results have been so favourable that I wish to present them to the medical profession.

Schellberg has cured many very obstinate cases of intestinal infection and ailments resulting from the absorption of bacterial toxins. He has demonstrated conclusively the practical value of irrigation and cleansing the large intestine. We as medical men, know that a large number of chronic pathological conditions are traceable to the absorption of putrefactive elements from the colon.

These putrefactive elements are either the bacterial toxins themselves or are formed by the action of bacteria on proteid matter held in the colon. In the baby's gut two processes begin early, one fermentative and the other putrefactive. The lactic acid fermentative processes should be always in control, but if through faulty diet, carelessness, or impure food supply the butyric acid ferments and putrefactive organisms become predominant good health may be replaced by sickness and disease.

As a child develops, the difficulty of keeping the proper healthful balance between the good lactic acid fermentative processes and the evil putrefactive becomes greater. We have with the coming of teeth more difficulty in keeping the oral cavity properly cleansed; other foods causing more putrefactive activity in the gut are added to the diet.

Metchnikoff and Lane were among the first to trace chronic disturbances to infected or diseased colons accompanied by more or less displacement. While many disorders have their origin in the colon, this is due to our misuse of it. Improper diet, overeating, lack of care for the hygiene of the mouth, and an attempt to conform Nature's

excretory demands to the conveniences of our daily tasks, are a few of the abuses that combine to make such a burden to the colon that it ceases to function properly. We have resulting colic, flatulence, constipation, haemorrhoids; later, stasis, ptosis, general lack of tone in the intestinal walls, a symptom complex of non-drainage.

Following, as a result of these disturbances, we have varying gastrointestinal symptoms, autointoxication with the many systemic diseases which follow this condition from the absorption of the bacterial poisons or the bacteria themselves, genitourinary infections from the passage of germs through the overstrained or damaged mucosa of the large intestine through invasion of the lymphatics by the infective bacteria.

The colon, a useful organ, is converted by ignorance, carelessness, or disease into a menacing bacterial incubator." - Dr William H. Galland, MD, FACS, Treatment for Chronic Colonic Infections", New York Medical Journal, 20 July 1921.

A Safe and Ready Method of Treating Intestinal Obstruction

"Dr. Robert Battey, of Atlanta, Ga, calls attention to the value of the injections of large quantities of water peranum to relieve internal hernia, however produced; intussusception; volvulus; obstruction from malignant disease or by the pressure of a tumour; intestinal spasm, and accumulations of hardened faeces. He gives cases, and demonstrates the safety of injecting 2½ or even 3 gallons of fluid into the alimentary cavity.

He gives one instance of a man who had double inguinal hernia, and in whom that of one side became strangulated. He attempted to reduce it as he had frequently done before, and believed he had accomplished it, but the reduction did not bring relief to his sufferings. Purgatives and opiates were given without removing the pain and vomiting.

The patient was then chloroformed, and tepid water injected into the rectum, until copious vomitings of discoloured fluid occurred in such quantities as to make it

evident that it had passed into the stomach from below. So great was the abdominal tension that the water spouted from the anus, when pressure was removed, in a bold stream to a distance quite 2 feet from the nates, and continued thus to escape till about a gallon had been discharged before the power of the sphincter became adequate for its control.

On recovery from the anaesthesia he passed the enema in successive and large quantities, with intervals of rest, and accompanied by a satisfactory amount of faeces.

The relief from pain was prompt and complete; the vomiting ceased at once. The quantity injected was about 24 pints. He claims for this method of relieving intestinal obstruction that it is entirely free from dangerous consequences. Atlanta Medical and Surgical Journal." - in "The Practitioner", Vol.13, 1874.

Chapter 6

A Plea for More General Employment of Intestinal Irrigation

"Irrigation of the intestine is a well-established procedure in the treatment of infantile diarrhoeas. It is described and recommended as a measure of the highest value in all the latest text-books on paediatrics. By careful observers it alone is considered in certain cases to possess more power for good than all the drugs:

Opiates, Antiseptics, and Astringents, together.

And yet how far, how very far, is its use from being general! Physicians will go on prescribing Chalk Mixture, Bismuth Preparations, Salol, Resorcin, Naphthol, Paregoric, etc., and this simple, common-sense procedure is not thought of. Whether this is due to a non-acquaintance with the virtues of the method, or to a lazy conservatism, or to lack of time, I shall not undertake to answer.

Case Report

I shall report a case, the history of which will illustrate:

Ludwig C., 8 months old. The child becoming very restless and feverish, the discharges becoming more frequent and more offensive in character, and obstinate vomiting having set in, a reputable physician was called in. He prescribed a chalk mixture with Bismuth Salicylate and Opium in it, and ordered liquid peptonoids to be given hourly.

The discharges stopped for about a day, but then reappeared with greater severity; at the same time the child's fever rose from 38° C to 39°C He then prescribed small doses

of Antipyrine (one grain and a half every 4 hours), and in rapid succession powders of Bismuth Subgallate, Bismuth Naphthol, Tannic Acid, and Dover's powder, and lastly the very newest combination: Tannalbin.

As is seen, the physican was well up in the newer remedies. But the child obstinately refused to testify to the skill of the German chemist, and kept on slowly but steadily getting worse. The fever rose gradually, in spite of the increased doses of the Antipyrine; though not actually comatose, it was all the time drowsy.

At last, on 24th July, the child was "given up" by the doctor, who said that nothing more could be done for the child, and that it would die within 24 hours. Having treated a child on the same floor with a simple diarrhoea, and the child having recovered in a few days, I was appealed to as a "dernier ressort".

Status Praesens: Temperature, 41° C; pulse impossible to count; hands and lower extremities ice cold; rest of body, and especially head, hot; respiration very shallow and feeble. The large intestine, and with a bulb syringe proceeded to irrigate. The amount of faeces, black and exceedingly offensive, that came away was simply enormous, the supply seemed inexhaustible; it was a surprise to those standing around, as well as to myself, how such a small abdominal cavity could hold such an immense mass.

I had used up over two gallons of water before the return water came out clear. I then put the child into a hot mustard bath, pouring cold water from a distance of about 3 feet on his head and forehead, between the eyebrows. The bath lasted 6 minutes.

The buttocks were pressed together for about five minutes; the child was then put to bed with hot-water bottles to his feet and cold-water compresses to his head, and it immediately fell asleep. Within 45 minutes the temperature fell from 106.6° to 102.5° F. The child is today, a week after having been given up perfectly well.

This case it is a typical one illustrating 2 points:

1. The routine way in which some intelligent physicians, and the older members are greater sinners in this respect than the younger ones, will go on treating those eases, locking up the discharges, retaining the toxines in the body, and pitching the poor little sufferers full of drugs and chemicals that can neither be absorbed nor, if absorbed, be of the slightest value;

2. It illustrates a method which, in my hands and in the hands of those who have employed it, has proved successful in saving the life of many a poor little sufferer, after all hope had been given up.

Of course, the method has its disadvantages: it takes considerable time, it is disagreeable and troublesome, and if you want good results you must do it all yourself. But has a physician the right to grumble at loss of time and the unpleasant features of a method when the case requires it? Most emphatically, no!

In conclusion

I will say that it is my sincere conviction that many lives of children suffering with summer diarrhoeas are needlessly sacrificed to the routine method of treatment by drugs, and drugs only." - Dr William J. Robinson, MD in , New York Medical Journal, Vol.66, 1897.

Chapter 7

Statements of Clinical Evidence

Perityphlitic Abscess, Its Treatment

"Perityphlic (surrounding the caecum) - Dr. F. Weir (N.Y. Med. Jour.) concludes a paper on this subject thus:

1. That faecal accumulation and caecal perforation were not to be regarded as causes of the affection.

2. That absolute rest and sedatives, not purgatives, were likely to relieve an impending attack; such attacks might return several times and end in an abscess, but they might entirely cease. That most cases tended toward perforation and gangrene, but that pus formed first inside the peritoneal cavity. The inflammation spread with each attack to ward the adjacent bowels. It sometimes made a ragged perforation backward through the peritonaeum.

4. That if a tumour was detected, it should be opened as soon as signs or symptoms appeared showing that pus had formed.

5. That when the symptoms showed an increase of the local peritonitis for 36 hours running, the danger from an incision was less than from expectant treatment.

6. That if general peritonitis was suspected it could be shown to exist or not by a fine needle thrust deeply into the hypogastric region or by an exploratory
incision.

7. That if general peritonitis was found, irrigation and drainage without handling was best. Only 1 in 25 had recovered by treatment after suppurative peritonitis had appeared; all his cases had died. Treves cured suppurative arthritis by simple irrigation.

8. That many deaths following operation were not due to suppurative peritonitis, as he had demonstrated at autopsies. These patients had apparently died of paralysis and obstruction in the intestine resulting from the septic process and from persistent vomiting. Washing out the stomach under these circumstances some times re-established periastalsis in the intestine, and saline purgatives were also in order." - Dr. R. F. Weir, MD in "The American Lancet", April 1889.

"The manner in which our food is shovelled into the stomach, which is thus always overburdened with improperly digested food, overtaxing the liver and resulting in a serious condition. We can not be too careful in having the systems of these patients flushed out sufficiently.

I do not know whether the doctor in the balance of his paper objects to the use of water per rectum; if so, I wish to differ with him. These patients need to be washed out; whether it is done by means of Colonic Lavage or water by mouth is immaterial.

Colonic Lavage washes out the liver and the kidneys, produces diuresis, and, if the water is sufficiently hot enough, even diaphoresis (perspiration).

You remove the products of imperfect metabolism, relieve the toxemia, which is a part of almost every intestinal trouble which we are called upon to treat in this country.

Therefore, I should be extremely sorry to see the author opposed to the use of water, per rectum or per orem." - Dr Charles L. Minor, MD in "Transactions of the Mississippi Valley Medical Association", 1899.

"In some of these cases (rheumatism) we give Colonic Irrigations twice a week. Colonic Irrigations given over a period of years, do not produce any deleterious changes in the colon demonstrable roentgenologically". - Dr R. Garfield Snyder, New York, in "JAMA", 14 Oct. 1933.

> *"It is certainly illogical to argue against irrigations as unphysiologic and tending to weaken further a poorly functioning bowel, when foul, putrefactive and fermentative masses lying for days, and possibly weeks, at a time can be so easily and innocuously removed by simple intestinal lavage." - Dr. Joseph E. G. Waddington, MD in "Scientific Intestinal Irrigation and Adjuvant Therapy", 1940.*

Despite the number of "authoritative" expressions deriding the use of colonic irrigations, there are an increasing number of reliable opinion which undeniably attest to the therapeutic value of such treatments when correctly administered.

Dr Walter A. Bastedo, MD in "Materia Medica Pharmacology and Therapeutics" 1937, concisely states:

> *"A colon irrigation (colon lavage) is not given to produce a bowel movement. It is employed to cleanse the bowel above the area of defecation to promote the expulsion of flatus. As distinguished from the enema an irrigation implies washing, and this can be accomplished by slow administration after the bowels have moved, avoidance of muscular reactions in the bowel, and ease and relaxation on the part of the patient. An enema is a colonic flush, and irrigation is what the name implies, a continuous washing and bathing of the parts."*

"Often the patient is so toxic that a period of preparation for operation is required. Here a careful realization of the complexity of the toxic state may be of aid.

Lessening of the hyperthyroidism, by topical applications of ice to the neck, physical and nerve rest, eliminating possible acidosis by alkalies and free catharsis, is often of advantage.

In addition, **the use of alkaline Colonic Irrigations, and attention to any focal infection may prove of distinct value.**

This class needs no examples.

It is mentioned because a realization of the handicap from focal and especially intestinal toxemias in pronounced systemic goiter may aid materially in reducing mortality." - Dr Bainbridge, MD in "Illinois Med. Jour.", Sept., 1921.

> *"Dr. H. F. Rathbun said he was surprised that no one had spoken before of the use of alkalies. In his experience alkalies were practically specific in colon bacilli infections of the kidneys, in some cases in small doses and in others in large doses, together with copious colonic irrigations. He was also a great believer in pelvic lavage, especially in subsiding cases." in "The Medical Record", Vol. 101, 4 Feb. 1922.*

"The good results obtained by intestinal irrigation seem to be the clearing out of such products.

I can here hardly pay too high a tribute to those who have investigated the matter of self-infection, Roswell Park and many others, or to our "children specialists", who have so ably demonstrated the value of irrigation. The medical profession at large can learn much by following their lead.

To the gynaecologists also we are much indebted. They have certainly demonstrated that careful attention to the intestinal tract, the rapid opening of the bowels, etc., will cause rapid disappearance of septic symptoms.

Cleanliness of the large intestine may often prevent or mitigate many complications.

By this I do not mean that the rest of the intestinal tract should be neglected.

The close relation of the large plexuses to the intestines, and the influence on the system through them, are also worthy of note." -Dr Robert Coleman Kemp, MD in "New York Medical Journal", 13 March 1897.

Prostatodynia

"This painful affection is not mentioned as often as coccygodynla, but is just as serious an affection to those who have the misfortune to endure this dull aching pain.

It is usually due to the pressure of a loaded rectum, and the relief given by a cold water enema, which unloads the bowels effectually is complete, and gratefully acknowledged by the patient." - Dr E. W. P. Downing, MD, in "Medical Brief", 1905.

Heart Disease and What to do to Save Life

"Emergencies - In case of heart failure or collapse the following treatment will save your patient: inject hot sea or salt water up the rectum and retain it there for one-half hour by placing the hand over the anus.

This solution is quickly absorbed by the colon and sigmoid flexure, and the pulse and colour promptly improve and the patient quickly rallies.

To one quart hot water, at a temperature 39 C. Add a teaspoonful salt and inject up the rectum." - Dr Zachary Taylor, MD, in "The Medical Summary", 1906.

Asphyxia: Its Meaning, Its Causes, and Treatment

"Asphyxia, in truth, is that condition of system consequent upon impeded respiration; and as I have remarked to you, the respiratory process may suffer derangement from several different causes, and in various degrees.

Carbonic acid gas, carburetted hydrogen gas, submersion, and strangulation or hanging, are all so many causes of asphyxia. Again, you may have asphyxia in a case in which the respiratory process has never been established, and this often occurs in a new born infant.

The physiologist has proved that respiration is dependent upon the excito-motory system, or, in other words, upon the spinal cord. It will be useful to throw warm water into the rectum, mixing with the water assafoetida; the stimulating effect of the enema is sometimes followed by prompt and decided benefit." - Dr Gunning S. Bedford, AM, MD in "Clinical Lectures on the Diseases of Women and Children", 1862.

Chapter 8

Reference Notes on the Value of Colon Hydropathy

"Every practitioner of medicine can recall the cases, in which a perfect syringe would have saved hours of pain, and in which he could find only the most inefficient aid from a leaky barrel and a loose piston.

"Warm water is injected into the rectum to excite alvine discharges, to promote the haemorrhoidal flux, to diminish irritation in the large intestine, or in some neighbouring organ, as the uterus, bladder, prostate gland, &c.; and to bring on the menstrual action. Thrown into the vagina, it is used to allay uterine irritation and pain, and to promote the uterine discharge. Cold water is thrown into the rectum to check haemorrhage, to expel worms, to allay local pain, to rouse the patient in poisoning by opium." - Dr. Pereira, MD of London.

In cases of intestinal spasm or colic:

"The spirit of turpentine thus employed is an efficacious remedy, especially when much flatulent distention is associated with spasm. In some cases of lead colic, I have found the colon so enormously distended, from flatus and loss of contractile power, that I could distinguish its form and course, in the different abdominal regions, by the eye, when standing at a considerable distance from the patient; and yet the bowel has been restored to its healthy state by repeated injections containing

turpentine, castor oil, &c., aided by stimulating friction on the spine." - Dr. Copland, MD editor of the Medical Dictionary.

In the colic of the young and plethoric:

"A very successful mode of treatment in these cases, is that of gradually forcing up, by injection, a large quantity of some bland fluid until it reaches the seat of obstruction or of spasm, when a speedy evacuation and relief will generally follow. In many instances it will be required to repeat it, before this result takes place; but, in all curable cases, if reasonably applied, more speedy relief may be expected from this means than almost any other." - Dr. Charles A. Lee, MD, New York.

Language almost fails to express the great value of this innocent and powerful remedy in very many of the diseases to which mankind are daily and even hourly subject; and I most seriously regret to say that it is a remedy not only too little known but too seldom used, both by physicians and in families. This disregard for the great virtues of injections must either arise from the supposition that the operation is too troublesome, or from a false and foolish delicacy, which forbids the use of an instrument by which the lives of thousands have been preserved in extremely critical circumstances, and with which every mistress of a family should be perfectly acquainted, so as to be able to use when required in sickness.

And I do here most positively assert, and that, too, from my own experience, that hundreds to whom I have been called in cases of cholic must have died had it not been for the immediate relief given by injections.

I will mention one strong instance to prove the correctness of my assertion. While practising in Virginia, I was called on, at midnight, to attend a stranger, who had arrived but a few moments before in the mail stage. This

gentleman was one of the judges of the supreme court in the State of New York. He stated to me that the cholic had been coming on him for a considerable time before the stage stopped. By the time I arrived his misery was so extreme that he repeatedly exclaimed:

"I must die unless immediate relief is given me".

After administering all the remedies which are usually given in such cases, without any relief, I commenced administering injections of water, pleasantly warm. On the first being thrown up the bowels he experienced more relief than had been produced by all the other remedies I had tried. He felt an immediate exemption from pain, and after two or three more had been given, a copious discharge by the stool followed, and he was entirely restored.

Injections principally act by exciting the lower portion of the intestinal tube, and sometimes from the effects of sympathy. In the latter case the discharges are generally copious, or in other words, of large quantity; and to produce these full discharges by stool, the injections of warm water, tempered so as to be pleasant to the feelings of the patient, may be frequently administered, and in such quantities as the bowels will bear. I have continued to give these injections of warm water for an hour or more, in many instances, before I could overcome or subdue spasm or cholic, and in cases of great constipation.

In fevers and inflammations, injections made of slippery elm bark, which I have frequently directed and administered, tend to cool the whole system, allay the heat and irritation of the bowels, and gently assist the operation of the medicine which has been given.

They will also produce a determination to the skin, which means a gentle moisture or sweat. Tepid or warm water always opens the bowels, but the very reverse of this practice is sometimes resorted to in desperate circumstances and with great advantages by some of the most distinguished physicians.

In cases of very obstinate constipation relief has

frequently been obtained when all other remedies had failed, by an injection of the coldest water, even of iced water. There are many persons who are constitutionally subject to costiveness. This costiveness arises from a variety of causes, such as diseased liver, indigestion, torpor of the bowels, and from improper food being taken into the stomach and bowels, which will generally produce spasms or cholic pains, depression of spirits, etc.

All these can be easily remedied by a simple injection of water thrown up the bowels, which relieves them of their load, and the mind and feelings soon experience an agreeable change. You who are always taking medicines to keep your bowels open and whose stomachs are becoming exhausted and worn out by medical drugs, let me entreat you, as a friend and physician, who has witnessed throughout France the great and surprising benefits arising from this simple operation, to abandon the idea of constantly taking medicines for the purpose.

In France there is scarcely a family unprovided with an injecting apparatus, which is always used when there is the slightest obstruction or costiveness of the bowels.

These people mostly use a simple clyster of milk and water, and sometimes water alone; in summer they use cold water, and in winter, water pleasantly warm. It is to the warm bath and the common use of injections that are to be attributed, in a great degree, the cheerful dispositions, the uniform health, and the practical philosophy with which these people bear the hardships and misfortunes of life.

In fact, if you take from a French physician the warm bath and the injecting pipe, he cannot practise medicine with any kind of success.

The importance of injections, both in the hands of physicians and families, has become so well known, and is now so highly valued, as to call forth the commendations of the most eminent physicians of both Europe and America. Injections constitute one of the most powerful, innocent, mild, and beneficial remedies known in the science and practice of medicine." - Dr. J. G. Gunn, MD in "Gunn's Domestic Medicine", 1850.

Dr Martin L. Bodkin, MD in "The Irrigation of the Colon in Internat. J. Gastro-Enterol", July 1921, recommends this Colonic Irrigation.

O. Boto Schellberg, RN in his book "Colonic Therapy In the Treatment of Disease", 1923, writes comprehensively on Colonic Irrigation.

Dr W. W. Blackman, MD in "Better Colon Lavage", J. M. A. Georgia., Nov. 1925, insists that the colon becomes engorged by neglect and emphasizes the necessity of keeping it clean by the use of irrigation.

Dr Marks S. Shaine, MD in "High Enemata and Irrigations", M. J. & Record., 2 June 1926, concludes that many patients with chronic constipation are relieved by the use of colonic irrigation when medical treatment has failed.

Dr Snyder, MD & Dr Fineman, MD in "A clinical and Roentgenologic Study of High Colonic Irrigations, as used in the Therapy of Subacute and Chronic Arthritis", Am J. Roentgenol.", Jan. 1927, noted the beneficial results obtained in the treatment of Arthritis, and publish a series of roentgenograms of colons illustrating their views. They have credit Dr. Lockwood of New York with being the first physician to use this procedure.

Dr Violet M. H. Rendall, MD in "Remarks on Colonic Lavage", Lancet, 5 Jan. 1929, notes that Colon Irrigation cannot be expected to produce permanent results unless focal infective areas in other parts of the body when present are found and removed. States that

many Mental Conditions, and some forms of Asthma, Neuritis, Sciatica, Gout and Rheumatism are benefited.

Dr Carlton L. Rowell, MD in "Colonic Therapy", Arch. Phys. Therap. X-Ray Radium, Aug. 1929, cites cases of arthritis, high blood pressure, sleeplessness and vertigo which were relieved by Colonic Irrigation.

"A barium enema does not represent the normal state of the colon; it represents the effect of an enema on the colon, with extreme distention, a condition in which the colon is not ordinarily found at all.

Haustral contractions are not peristaltic waves, though often thought to be so by those interpreting them. Haustral contractions may last 30 minutes, or 1 hour.

I have seen them last a long time in an animal with its abdomen opened. They are retarding contractions of the colon. They keep back the contents of the colon.

They prevent movements all the time as the material comes down from the ileum into the colon; therefore, they are not peristaltic waves at all. They are fixed, spastic waves. On the other hand, peristaltic waves are driving waves and in the radiograph are distinct from these.

I am an advocate of colonic irrigations because they do something.

In the first place, the patient must have had the morning movement or an enema should be given to produce the movement, because a colon cannot be properly irrigated if the lower bowel is full of faeces.

Secondly, it requires a long time to give a colonic irrigation. It is not a matter of getting water to the caecum and out again; any enema will do that.

Are these colonic irrigations of any use? Yes. Sometimes after a lot of soaking I get out nasty mucus.

I have bottles of preserved mucus and great casts of the intestine up to 46 cm in length, dark coloured and vile-smelling when expelled; and this does not come down at first, and it rarely appears in the faeces so far as I can see.

If these mucous substances never appear in the faeces, what becomes of them? They must be absorbed into the system and they are poisons." - Dr. Walter A. Bastedo, MD in "JAMA", 28 February 1931.

"One of the most important factors in the reparation of patients with malignancy of the colon is, if possible, the restoration of bowel movements. It may be accomplished by cleansing enemas in the rectum and by mild saline cathartics, producing complete evacuation and elimination of retained material above the obstruction. Much of the toxemia which accompanies malignant lesions of the colon can be combated not only by this elimination but by the increased intake of fluids by mouth or by intravenous administration." - Dr Frank H. Lahey, MD, Dr Sara M. Jordan, MD in "Cancer of the Colon", The New England Journal of Medicine, 2 June 1932.

"Colonic Irrigation forms part of the routine work of most hospital physical therapy departments and of physical therapy specialists offices, because of the special facilities and skill needed for its administration. The principle of measured suction and pressure embodied in modern colonic treatment apparatus has made these particularly efficient and safe. The indications for Colonic Irrigation are: Impactions and Threatened obstructions of the large bowel; Chronic or Acute Toxemia, from absorption of putrefactive products; preparation for surgery to prevent postoperative flatus pains, from decomposition of retained material; preparation for Fever Therapy, where absorption of toxins from retained faeces adds to the hazard; postoperative clearing on the fourth or fifth day after

surgery, to remove hardened faeces and flatus; amcebiasis, trichomonas and other parasitic infections; diagnostic aid in all disturbances of the alimentary tract." - Dr Richard Kovács, MD in "Electrotherapy and Light Therapy", 1945.

Chapter 9

Colonic Cleanliness

"Purgation, being practicable without the aid of the doctor, was almost universally employed as a health-preserving duty. Cathartics were regarded as cleansing agents, and not less important for the alimentary canal, than soap for the surface of the body. An occasional internal "scouring" was supposed to be even of greater importance than a thorough external scrubbing, for while the latter was enforced chiefly on the score of cleanliness, the former had the additional recommendation of being thought to be essential to the welfare of the system." - Dr Austin Flint, M.D., Professor of Principles and Practice of Medicine, Bellevue Hospital Medical College, and Long Island College Hospital, in "Conservative Medicine as Applied to Hygiene", The American Journal of the Medical Sciences, Vol. 46, 1863.

"Understanding of the nature of the intoxications that result from changes in the intestinal contents and the relation of the liver functions thereto. Whether one is an advocate or an opponent of the Colon Irrigation as a therapeutic measure, one cannot but profit its study." - Dr Walter A. Bastedo, M.D., in "Chronic Intestinal Toxemia and its Treatment. With special reference to Colonic Therapy", 1938.

"It is true that in all sickness the status of bowel activity is inquired into as a matter of routine, and a laxative or

enema prescribed when indicated. With the exceptions of typhoid fever, the specific dysenteries, chronic ulcerative colitis, diverticulitis, carcinoma, and one or two other definite entities, abnormal conditions in the intestine are not well understood, either etiologically or in their potential significance. As a logical result, treatment of these conditions is largely symptomatic and empirical. And just as long as we continue to assume that the colon will take care of itself if only left alone, just that long will we remain in complete ignorance of perhaps the most important source of ill-health in the whole body." - Dr James Wesley Wiltsie, MD, in "Chronic Intestinal Toxemia and its Treatment. With special reference to Colonic Therapy", 1938.

Treatment of Intestinal Obstruction

"It is today a recognized fact that enemata are the treatment par excellence for intestinal obstruction. It is, therefore, absolutely necessary that the enema should have such powerful exciting influence on the muscular structures and on the inhibited nerves as to produce normal, easy, imperceptible peristaltic action.

It happens also frequently that, later on in the course of the disease, nature seeking an outlet for the accumulated material, or from direct excitation produced by remedies administered, a reversed peristaltic action of the parts above the seat of difficulty occurs, and we have vomiting. This is a grave condition, and generally hastens the fatal result.

To bring relief even to so serious a condition, there must be enough power in the enema to reverse this action, to bring it back to its normal form.

Clinical Cases Examined

CASE I — In December, 1878, a case of intestinal obstruction, boy aged 14 was the patient. He was of flabby habit, rather dull, neither working nor studying, living on cakes, coffee, and slops, and not much given to substantial food. The doctor had been called 2 days before, and learned a history of what he supposed, at the time, to be ordinary constipation. He ordered him a laxative. This did not act.

I examined the abdomen carefully, and found about the region of the umbilicus an elevation which was rather sore on pressure. The boy also complained of pains shooting out from this spot. My diagnosis was intussusception.

I had at one time noticed in the office of the late Dr. Holdt a syringe constructed like a pump, and throwing a continuous stream with considerable force. I advised against any further medication, and suggested to my colleague that I would procure the above-mentioned instrument, and that we should try enemata. We returned in the evening, Dr. Holdt kindly loaning me his instrument.

I threw into the bowels nearly a basinful of cold water, in fact, so much that the patient cried out that he could no longer bear it. He got upon the chamber, and the water passed from him very much coloured with faecal matter, 5 minutes thereafter we gave him another injection, until he cried he could not hold it any longer.

This time he had a large faecal evacuation, very fluid, of course, from the large quantity of water injected. In the morning we found him much improved, his bowels had moved several times during the night, and once in the morning. In 3 days more he was up and about.

CASE II - Mr. F., aged 70, an old gentleman, hale and hearty, very active, and a good eater; much subject to flatulent colic. He stated that when these attacks came on, it seemed to him as if something had knotted in the right hypochondriac region. In the winter of 1880 I was called to see the old gentleman, who was again complaining of an attack of colic. I gave him a hypodermic injection of

morphia. Next morning early I was summoned to him again, and found that he was still suffering severely.

I ordered him a pill of opium, half a grain, and extract hyosciam, half a grain, to be taken every 2 or 3 hours, as the severity of the pain might demand. This was continued for 2 days. He now had difficulty in micturition, but little urine, and that with much pain. The pains in the bowels still very severe. Vomiting of biliary matter had set in.

Dr. Forchheimer was called in consultation. He examined the case, and we agreed upon a purgative in the shape of calomel and jalap. This was at 2 A.M. In the morning I visited my patient, and found his condition very bad. Countenance anxious, and expressive of great agony. Continued vomiting of biliary matter; small, feeble pulse.

He had summoned his children, in the expectation of speedy dissolution. The powders were vomited almost as soon as swallowed. His wife, upon her own responsibility, had administered to him during the night about 12 injections, both from a fountain and Davidson syringe. None of these injections, she assured me, had passed from him. I had brought with me the same syringe which had previously proved so effectual.

Fearing to add to the shock in this case, I determined to use hot water. I accordingly had a large china washbowl, full of water, brought in, cooled it to the temperature of 41°C., and then proceeded to pump him full, until he could hold no more; whilst he rubbed himself about the umbilicus and said he felt the water go all through him. He got upon the chamber, when the injection passed off with a large discharge of gas. Five minutes later I gave him another injection, of about the same quantity as before; this time, how ever, the temperature of the water was 32.C.

This was very soon discharged with some faecal matter, and considerable quantity of flatus. He now felt much better. The pain was very much relieved, and the vomiting arrested. I then waited fifteen minutes and gave him another injection, water at 41°C. This soon passed away, with considerable faecal matter and gas; pain completely relieved. I now left him, directing him to take some beef

broth and brandy at intervals. Returned in the evening, and found him doing very well; had had two more evacuations since morning; passed urine freely; had taken the beef broth and brandy with great relish. Completely relieved of pain.

There was considerable soreness over the abdomen; more so in the right hypochondrium. He felt very much prostrated. He was now ordered a tonic, kept on light nutritious food, and in a week was on his feet again, attending to his duties as usual.

CASE III — 24 August 1883 at 5 A.M., I was called up to go and see Mr. I. A. He was suffering with the cramps, the messenger said. I immediately armed myself with my hypodermic syringe and proceeded to the house. Mr. I. A. is a gentleman of about 50 years, of stout habit, and quite an expansive abdomen. He had formerly gone through considerable illness, but of late years had been quite well.

He is methodical in his habits as to diet and rest. Reaching the house, I found the old gentleman in bed, restless, and shrieking with pain. Examining the abdomen, I found a marked elevation in the right iliac and hypochondriac regions, extending very nearly to the median line. Upon slight percussion, such as was only possible under the circumstances, this region was found markedly tympanitic. The patient screamed for relief from the atrocious pain that was tearing him to pieces.

I administered a hypodermic injection of mxv Magendie's solution of morphia, 15 minutes elapsed, and no relief. I administered another hypodermic injection of the same strength. Still no relief; the patient continued as before. I now proceeded to give him rectal injections with an ordinary Davidson's syringe, which I found in the house.

The fluid passed away from him, but there was no improvement. I administered about 6 such injections, varying them with oil, with turpentine, with salt, but the condition remained as before, with this aggravation: that the patient, who is rather of nervo-sanguine temperament, was becoming greatly alarmed at the failure to relieve him.

I now realized that I had a case of intestinal obstruction to

deal with, of the ileo-caecal variety, and at once sent for my force-pump. Till now about 2 hours had elapsed, with the various fruitless attempts and manoeuvres.

The syringe brought, I got a china basin about 3/4 full of hot water, temperature 39°C., and, adding a little salt and about 20 drops of spirits of turpentine, proceeded to pump my patient full. I injected into him nearly the whole quantity of water. He got upon the chamber, the water began to pass, then suddenly there was a loud discharge of flatus.

Observing him whilst he was on the vessel, I noticed at once, with the evacuation of the gas, a change for the better. The face, that had been pinched and drawn, as is common in acute intestinal suffering, now resumed its natural appearance, and a sense of comfort thereon began to manifest itself. He had a faecal evacuation.

The patient was now relieved; he lay down and rested quietly. In 20 minutes I repeated the injection, and another faecal evacuation followed. The patient was now calm, and soon thereafter fell asleep.

Although the obstruction was relieved and the flatus evacuated, the patient still felt great soreness in this region, and the general manifestations led me to believe in an incipient inflammation. These manifestations disappeared, and in 10 days the patient was out.

I am satisfied that, if relief had not been so promptly afforded in this case, a very dangerous and violent inflammation would have rapidly supervened, and the patient would have succumbed. As recited in the histories of the cases here recorded, I supplemented the powerful action of the force-pump by using water either cold, at a temperature of about 18° to 21°C., or hot, from 38° to 41°C.

Summary

In Case I, a young boy of phlegmatic habit, with no symptoms of inflammation, with very little pain, with a decidedly lethargic condition of the general system, I used cold water. In Case II, an old man of over 70, and very much debilitated by suffering and inability to take food; and in

Case III, also a man past his prime, of nervous temperament, and very susceptible to suffering, there was the probability of an acute congestive or inflammatory condition being present, and I used hot water, more agreeable to the sensations of the patient, and less liable to produce severe shock.

By this method, besides obtaining rapid relief for the patient, there was also gained the beneficial effect of the hot or cold water upon the walls of the intestines. It is superior to the opium treatment, in that it cures the patient and thereby relieves him promptly of his suffering, whilst opium frequently fails to accomplish the sole purpose of its administration - the relief of pain. This is well demonstrated by Cases II and III.

The superiority of the plan of treatment by the force-pump, supplemented by the use of water, either hot or cold, has been clearly demonstrated by the cases here recorded.

It possesses, moreover, another advantage over all other plans of treatment and one that is certainly of the greatest importance both to patient and physician, namely, that it differentiates clearly and distinctly whether a given case requires a surgical operation or not.

Conclusions

Though the cases be few in number, still, from the rapid and brilliant manner in which Cases I, II, and III were cured, the following conclusions can be justly drawn therefrom:

1. Enemata are superior to every other method of treatment:

a) In the rapidity with which the cases are relieved.

b) And in clearly indicating whether a surgical operation will be required.

2. They are entirely safe and free from all danger, and in no way prejudice the case should a surgical operation become necessary." - H. Illoway, MD in "The American Journal of Medical Sciences", 1886.

Chapter 10

Steps Toward The Cure of Disease

"As a general rule, keep the stomach in right action, and the whole system will be right. Although, as a very general rule, a rule with few exceptions, its maladies can be avoided by a knowledge of its peculiar functions and laws, yet it may possibly, by the strictest care, become deranged, and the whole system be put into liability to suffering.

Its lining membrane may become coated with a viscid mucous secretion, or its nervous tone may be temporarily prostrated, so that a healthy appetite may be gone, and the whole system brought under some form of fever. If, on the approach of the disturbance, abstinence from ordinary food be rigidly adhered to for a day or two, the stomach may free itself from its causes of oppression.

If, instead of resorting to emetics and cathartics, as is frequently done, the person affected would cease all ordinary eating, and live on mere Indian gruel, till the stomach could have time to clear itself from its mucous coating, or gather up its electric vigour, the whole difficulty might come to an end; a protracted sickness, severe drugging, a large bill, and perhaps a premature grave, might be avoided.

Whenever the stomach has lost its tone or become oppressed by wrong eating, the only cure that can suffice, consists in temporary abstinence from food. Hundreds and thousands have sick headache, nervous headache, heartburn, sour stomach, and other ailments which are, if not caused, greatly enhanced by bolting down the food without stopping to masticate it; and the poor foolish sufferers will swallow quarts of pills, neutralizing salts, emetics, syrups, and a host of other things, in hope of cure. When they will cease insulting their stomachs by their swinish eating, they will find that organ to regain its

strength. There are many diseases which originate in the existence of morbid matter in the stomach and bowels. In all cases of illness, the condition of these organs should be a matter of inquiry." - Dr Larkin Baker Coles, MD, in "Philosophy of Health: Natural Principles of Health and Cure: Or, Health and Cure Without Drugs", 1851.

"Many of the chronic ailments of the pelvic and abdominal organs, are caused by intestinal auto-intoxication. Colonic lavage properly and sufficiently used is an excellent adjuvant in the correction of such disturbances." - Dr Hamilton Fisk Biggar, MD in "Caesarian section", 1 July 1893.

Physiological Experiments With Intestinal Irrigation on Pulse Tension, Temperature, Renal Secretion & Excretion, and Intestinal Absorption

Deductions

"1. Hot Irrigation, 43°–49° C., when prolonged, increases the temperature of the body and blood. The increase of blood temperature is possibly due in part to the contiguity of the solution to the great vessels, as there does not seem to be a proportionate ratio of increase of the temperature of the body to that of the blood if due merely to effect on heat centres.

In other words, the influence on the blood temperature seems to be greater in proportion than it does on that of the body. The heated blood would undoubtedly be of value in stimulating the heart, and this shows the further advantage of irrigation at a high temperature in shock and allied conditions.

2. If the patient's temperature is already high, it might be

dangerous to irrigate with fluid at a high temperature for fear of increasing the temperature of the patient.

3. Cold irrigation reduces temperature, but is depressing after 20 to 25 minutes. At first, cold acts as a stimulant.

4. Clinically, irrigation at a high temperature has proved to be excellent in shock and allied conditions, as stated above. Chapin, of this city, has employed cold enemata in the diarrhoeas of children to aid in the reduction of temperature, and with success. Cold irrigation has also been employed in dysentery for this purpose with good results.

Cold Irrigation might be employed in sthenic cases to reduce temperature, if used with caution, for five to ten minutes. Friction of the limbs during its application would be advisable, as during the Brand bath. I should not myself care to employ at the start a temperature below 16°–21°C.

I refer here to High Intestinal Irrigation.

It would probably be safer also to use it at first only 2 to 3 minutes. On the other hand, I have seen benefit in jaundice (duodenal) from the cold irrigation briefly employed (2 litres), or from the alternate hot and Cold rectal irrigations are much safer, and I have seen iced water so applied for thirty minutes in a congestive condition of the rectum, and with great benefit. Some, however, have a marked idiosyncrasy to cold of any degree, and it should therefore be employed with caution. I believe that without doubt the prolonged irrigation has, at the high temperatures, an influence on the body temperature, even though I may be in error as regards the amount of such increase.

The cold irrigation, when prolonged, is undoubtedly depressing. My fourth series of experiments were on the effect of irrigation at different temperatures on the secretion of the kidneys, and the length of time it requires for intestinal absorption to occur. Other conditions remaining the same, the secretion of the kidney varies with the quantity of blood flowing through it, the greater the quantity of blood, the greater the secretion.

The blood flow through the kidneys, and therefore their

secretory activity, may be affected by conditions influencing general arterial pressure. The condition of the renal circulation itself, and also its relative condition as regards the general circulation, have an important bearing on the subject.

Reference is here made to An American Text-book of Physiology, Edited by William H. Howell, in the chapter on Secretion.

The internal administration of water, in addition to external application, is of great importance in many cases of renal disease, and the employment of enemata or intestinal irrigation for their influence on renal secretion in some conditions has proved of undoubted value.

Deductions

1. In 10 minutes irrigation at the higher temperatures, especially 43°–49° C., stimulates the kidneys to secretion by the heat and by the stimulating effect on the circulation also by the heat, blood flow through the organs.

2. In 20 minutes, irrigation at 43°–49°C. causes excretion from the kidneys actually through absorption from the intestines, as is shown by the potassium-ferrocyanide experiments.

3. If possible, if the temperature or pulse tension is not too high, irrigate at the higher temperatures, 43°–49° C. This seems to act in a double way: by the stimulating effect on the circulation also by the heat, and by absorption of fluid from the intestine.

4. If it is desired to increase renal secretion with out increasing pulse tension or temperature, irrigate at 38°–40° C., and at 41°–42°, if moderate increase is not objectionable.

5. Intestinal absorption from the large intestine occurs in 20 minutes. This has an important bearing on self-infection. Hence the value of irrigation in diarrhoeas.

Note: Dr. L. Bolton Bangs has administered enemata of iodide of potassium and secured reaction in the urine in 20 minutes.

6. Clinically.—Hot saline irrigation is an excellent remedy

in acute uraemic suppression, or in cases of renal insufficiency.

Dr. Egbert Grandin, of this city, has had excellent results from this procedure, and has been advocating it for some time past. Dr. William H. Thomson has employed it with success when other means have failed. They both report excellent results, profuse sweating and bowel action accompanying the renal secretion.

Dr. Thomson has employed saline irrigation at 38°-40° C. with gratifying results recently in an obstinate case of renal insufficiency where other remedies were a failure. Renal disease with polyuria as a symptom would seem to contraindicate this method, or that it should be cautiously used and for short periods.

This statement has special reference to a case of enlarged prostate, in which prolonged irrigation was employed. It aggravated the polyuria and had to be stopped.

Cold Irrigation I would believe to be absolutely contraindicated in renal disease—also cold enemata. The cold irrigation would practically inhibit intestinal absorption on account of the effect on the circulation at the end of 20 to 25 minutes. This explains the apparent contraindication.

Now physiological experiments and the clinical application of them do not always agree. In the deductions as to temperature it will be noted that irrigation at 43°–49° C. was recommended when the pulse tension or temperature was not high.

The nature of the case, the age of the patient, and many other conditions are to be considered. I have seen excellent results in acute uraemic suppression, with considerable pulse tension and a temperature of 39° C., from a 20 minute irrigation at 43°–46° C., with profuse diuresis, sweating, and bowel action as a result, and a fall of pulse tension and temperature. Every case should be taken on its merits.

The above-mentioned case was in a young person. If the vessels are atheromatous, a great degree of heat would be unsafe. Being desirous of comparing the time required for renal excretion after Intestinal Irrigation with that after

hypodermoclysis and infusion, I conducted 2 more series of experiments.

Deductions

This method would thus be of value:

1. In shock.
2. In shock from haemorrhage.
3. In cholera, to replace loss of fluid and dilute poison.
4. In acute uraemic suppression, to start up secretion and dilute poison, etc. It has so been recommended, but I believe that it should be more frequently employed, as it is a valuable adjunct.

Note: In 1891 Dr. Robert Dawbarn, of this city, conducted a series of experiments at the College of Physicians and Surgeons as regards the proper temperature of infusion.

He found that saline solution at 46°–49° C. best stimulates the heart. He employs infusion of saline solution for cases of shock at this temperature and was the first to suggest and like wise employ such infusion before severe operation to prevent shock. In the course of his experiments he found infusion of sterile water (plain) killed the animals by destroying the red cells.

These experiments are here noted as of great importance in connection with infusion. My own experiments on infusion were in regard to the length of time it takes for renal secretion to occur. Some claim it occurs as soon as a minute after infusion. My experiments with irrigation also show that 43°–49° C. temperature best stimulates the heart.

Comparison

Infusion: Renal secretion occurs in 1 minute and a half to 2 minutes.

Hypodermoclysis: Renal secretion occurs in 3 minutes and a half to 4 minutes.

Enteroclysis: Renal secretion occurs in 20 minutes.

I am perfectly aware that enemata of water have been used for some years to promote renal secretion and dilute the poison of disease, to alleviate shock, and reduce temperature. Intestinal irrigations have also similarly been used, and the double-current principle was employed before I was born.

I know that experiments have been made in regard to intestinal absorption and the effect of irrigation on body temperature (see Hare). As regards the method of the insertion of thermometers in the large vessels, the experiment on haemorrhage with continued irrigation, and the results on renal secretion produced in varying degrees by the different temperatures, so far I have not been able to find similar experiments. If they have been previously performed I offer my apologies at once. The longer I live the more ready I am to believe that:

"There is nothing new under the sun."

I trust, however, that my efforts here published will induce others to investigate these most interesting questions and to correct the errors I may have made. Progress is the result of investigation, and necessarily of controversy." - Dr Robert Coleman Kemp, MD in "New York Medical Journal", Vol. Lxvii, 1898.

"Irrigation for the colon it has a distinctly antiseptic and astringent action." - in "The Therapeutic Gazette", 1901.

Therapeutic Adaptations of Cecostomy and Appendicostomy

"These operations, now being done largely at the instance of medical men as adjuncts to their treatment of certain otherwise intractable cases, are based on the principle that **disease within the colon calls for treatment addressed to the colon.**

The advantages of this method of access embrace:

a) Exemption of the stomach from medication;
b) Escape from impairment of the general health from deranged digestion incident to medication, and to relief from the uncertainty of remedies that have been subjected to indefinite and undeterminable chemical reaction in the upper digestive tract.

The anatomy of the parts point to cecostomy rather than appendicostomy as the operation of choice. Among the conditions for which ostiomatic operations on the cecum are now being successfully employed are:

1. Amebic Dysentery, in which it opens the way to treatment more phenomenally successful than has heretofore been realized in the history of this malady;
2. **Chronic Catarrhal or Mucous Colitis, usually very intractable, but which, as shown by my own cases, are cured by this method more promptly and in larger percentage than by other treatment;**
3. Chronic Constitpation depending on atony and not complicated with enteroptosis is readily brought under control as indicated by my own reports confirmed by those of other surgeons;
4. Acute Septic Peritonitis, in which, after operation the caecum is opened and utilized to flush the colon: "a hot water bottle on the inside", followed by saline infusion by the drop method "coloclysis;"
5. Defective Flora of the Colon is remedied by the installation through the caecal tube of bacilli chiefly of the lactic acid series;
6. **Antointoxication of intestinal origin is successfully treated by repeated Flushings of the Colon through the caecum, the cases recorded embracing cures by this method in Chronic Headaches, iodiopathic Epilepsy, Rheumatoid Arthritis and pernicious Anemia.**

My recorded experience and that of other surgeons force the conclusion that:

1. The establishment of Colonic Irrigation through the caecum, whether by cecostomy or appendicostomy, is a procedure attended with the minimum surgical risk;
2. The application of the operation as an adjunct of medical practice is based on the principle of direct treatment of the colon for conditions that are local to the colon;
3. The results so far realized justify the continued use of the operation and the more extended application of the principle that it embodies." - Dr Charles Rana, MD, in "JAMA", 15 January, 1910.

"**Other systemic conditions, which have yielded to treatment directed towards the colon, are eczema, urticaria, some cases of neuritis and migraine, and certain types of hypertension.**

The ordinary frontal headache of the so-called bilious type can be relieved in a very short time by a saline enema and diet. The most important detail in treatment, is diet.

The local treatment of the colon is secondary to diet.

The enema of normal salt solution is most valuable and effective. I cannot understand why some physicians still oppose enemas when they are so valuable in treatment.

In certain cases, where results are not sufficiently complete by enema, an irrigation should be given.

I trust that what I have said will serve to draw your attention to the colon in all chronic cases under your care.

To summarize:

a) The colon is a focus of infection.

b) Bacteria and toxins do escape from the colon into the circulation.

c) In diseases of the liver and gall bladder and all non-specific diseases of the genitourinary tract, the colon should be investigated.

d) The colon is a factor in chronic arthritis.

e) The most important factor in treatment is diet." - Dr Frank Anthony Cummings, MD in "The Colon as a Focus of Infection", The Rhode Island Medical Journal, 1934.

"**Use of colon lavage has never been in question in certain acute and emergency conditions.**

However, employed as a definite Therapeutic Measure in the treatment of disease, its greatest field of usefulness lies in that broad group of low-grade chronic infections variously spoken of as chronic intestinal toxemia, chronic focal infection, autointoxication, sluggish liver, etc.

Its use in these conditions is for the purpose of promoting tubular and cellular drainage, the healing of diseased tissues, the restoration of normal colon function, the improvement of both capillary and lymphatic circulation, and of liver function.

The principle back of free drainage is that infection tends to disappear when drainage is adequate, and in the absence of a feeder." - Dr James W. Wiltsie, AB, MD, in "Chronic Intestinal Toxemia and Its Treatment", 1938.

Chapter 11

The Effects of Colon Hydropathy

"After the enema there is expulsion of flatus, and usually a bowel movement, which gives the patient great relief." - Dr Constance V. Curtis, MD, in "Medical Brief", 1905.

1. Helps in Rehydrating the Colon.
2. Helps to Maintain a Healthy Intestinal Mucosal Barrier.
3. Aids in the Gut Brain Connection.
4. Helps to Balance the Gut Microbiome.
5. Helps to Restore Bowel Mobility.
6. Removes Excessive Waste, and Bowel Irritants.

The Value of Colon Irrigations

"1. Irrigation is of definite value in mucous colitis. It has relieved many cases not remedied by any other treatment;

2. To clean out the bowel in: Acute Food Poisoning, Acute Dysentery, or Acute Septic conditions of the bowel;

3. With hot liquids to allay pain in biliary, renal, and mucous colic, pain in the urinary bladder or ureter, and in tuberculous peritonitis;

4. With cold liquids in febrile states." - Dr Walter A. Bastedo, MD, Attending Physician, St. Luke's Hospital, New York, in "Colon Irrigations", New England Journal of Medicine, 1 November 1928.

The Pathological Basis for Intestinal Toxaemia

"An associated catarrh of the large bowel, and, in aggravated cases, the lower end of the small intestine. The existence of this is shown by excessive putrefaction in the stools, with frequently marked excess of mucus and, it may be, attacks of diarrhoea alternating with constipation. The urine is also frequently abnormal, containing catarrhal cells, white or red blood corpuscles, oxalate of lime crystals and bacteria, this condition of the urine being directly associated with and dependent upon the diseased state of the bowel.

Particular attention may here be directed to the value of irrigation following the enema; it is my practice in these cases to clear out the bowel with a soap and water enema, and to follow this with an irrigation of two pints or more of plain water. Under normal conditions the irrigating fluid is returned practically unaltered, or at most with a trifling amount of mucus, or mere traces of faecal matter.

In septic states of the bowel associated with intestinal toxaemia the irrigating fluid is dark, feculent, and offensive, often with excess of mucus and abnormally loaded with bacteria." - Dr Chalmers Watson, MD, FRCP, in "Manifestations and Treatment of Intestinal Toxæmia", Trans. Med. Chir. Soc. Edinb., 1914.

Myocardial Degeneration

"Dr A. E. Roussel, MD includes under this heading the following varieties:

1) fibroid degeneration;

2) fatty degeneration;

3) brown atrophy, a common change in that portion of the heart muscle secondary to valvular affections.

It is generally present also in the old and in those who have died from wasting diseases. Rarer forms are amyloid, hyaline (in prolonged fevers), and calcareous. These latter three possess no clinical interest. The symptomatology of the

general condition is detailed. A parenchymatous form is also met with in the infectious diseases, especially when they are protracted and accompanied by high temperatures.

Perfect recovery from this form is common enough, but the myocardial degeneration, even where not recognized, is the cause of many sudden deaths. As to treatment, rest in bed, easily digested food (largely nitrogenous), and attention to the bowels are of primary importance. Occasional purging with high rectal irrigation is also of service." - in "New York Medical Journal", 25 February 1905.

Treatment of Chronic Interstitial Nephritis

"General Hygienic Measures. In the early stages the treatment consists of advice. Regulation of the patient's life is the most important factor. The methods of doing so have been considered fully in the section on treatment of chronic interstitial nephritis.

Care of the Bowels

Active purgation is not indicated, yet constipation should be avoided. Regular habits should be established, the patient going to toilet night and morning and remaining 10 minutes on each occasion if necessary. Exercise and diet are controlled from the point of view of hypertension.

Some selection as to diet is possible. Fruits such as oranges and grape fruit, stewed prunes, oils such as olive oil and foods with a large residue such as coarse breads, etc., are of value. Bulk can be furnished the intestinal content by the use of agar-agar or Russian oil.

Myocardial Insufficiency

Hypertrophy of the heart is almost invariably encountered in chronic interstitial nephritis. Hypertension and arteriosclerosis also usually play a prominent role. Bright recognized these cardiovascular manifestations and was inclined to ascribe the cardiac hypertrophy to increased

difficulty experienced by the heart in forcing the blood through the capillary system. The problem of cardiac hypertrophy and hypertension are intimately connected.

The importance of cardiac involvement was apparent to Bright. In correlating the clinical and autopsy findings in 100 cases of chronic nephritis he found cardiac hypertrophy in 52 cases and in 34 of these no valvular lesion could be found.

Myocardial Insufficiency and Renal Function Myocardial insufficiency may occur independently but in a large proportion of cases it develops in association with nephritis.

Treatment

Myocardial insufficiency constitutes a pathological indication for treatment and calls for treatment notwithstanding the other conditions are present. The principles underlying this treatment are rest, limited diet, limited salt and fluid intake, depletion through bleeding, purgatives, diuresis or tapping, and support of the heart.

Purgation

This is employed in practically all cases of outspoken myocardial insufficiency. It is useful for the removal of water, for the removal of putrefactive material from the intestine and also for the relief of intestinal distention.

It may be employed without fear even where asthenia is marked and the pulse feeble. Hydragogues should be used.

Enemata may occasionally be necessary. After the anasarca disappears milder purgatives or laxatives such as cascara and liquorice powder may be required for regulating the intestines." - Dr. Leonard G. Rowntree, MD, in "A Handbook of Practical Treatment", Vol.4, 1917.

The Use of the Plombieres Douche

"By the employment of this method on an extended series of cases in which there were abdominal symptoms I have been convinced of its great value, as a means both of

diagnosis and of treatment. The particular method adopted is one which can be carried out by any intelligent nurse, and is as follows:

A preliminary water enema is given in order to obtain a complete evacuation of the colon. This is an essential feature and if adequate evacuation is not obtained the enema may have to be repeated. The result of the enema is carefully noted and then the douche, warmed to the body temperature, is administered. This consists of a 0.7%, saline solution to which may be added any antiseptic or drug which it is desired to apply to the surface of the colon.

The patient first lies on his left side, and the saline is slowly poured in. After 2 minutes the position of the patient is changed and he lies on his back: and after another interval of two minutes he lies on his right side; this change of position facilitates the flow of saline along the different parts of the colon. The nurse is instructed to report any symptoms of pain or discomfort complained of by the patient and whether there is any stoppage to an even flow.

For the first douche I usually direct that not more than 500ml should be injected; subsequent douches may be increased up to 1 litre. The douche of saline is usually quickly returned and in the first part, mucus, pus or flakes of mucous membrane (uncoloured, or coloured by faeces) and sometimes concretions, appear.

The presence of mucus or mucous membrane indicates surface abnormality, and any such discharge should be saved for naked eye and microscopical inspection. Very valuable information may be obtained occasionally by a careful microscopic examination of the product both unstained and stained, and, whenever possible, it should be sent for such examination. Parasites, pathogenic amoebae and bacteria, are found here less contaminated by other faecal bacteria, and the well-washed flakes of mucus form the only practical means of obtaining from the colon cultures likely to be uncontaminated.

The method is as valuable for diagnosis as for treatment, and it is in its routine application in clinical examination that its results have been so valuable. The presence of mucus or

membrane in the returned saline indicates catarrh or necrosis in the mucous membrane or a portion of it, and a painful spot may enable such abnormality to be accurately located. A careful inquiry about the patient's symptoms after the douche is important. Sometimes there is a sense of comfort, in which case we may presume that the lavage has done good; in other cases the patients complain of more discomfort, and when it may be that some inflamed area has been stirred up. The source of the catarrh is not necessarily in the bowel itself: it may be in the peritoneum or in some neighbouring organ.

As a therapeutic measure, I have used it in the following conditions:

1. Colitis of all types especially that following Appendicitis.

2. Sciatica and Myalgias of the lumbar region in which a coexistent mucous catarrh is frequently found; in one of the cases observed the result was most striking.

3. Pyelitis and bacilluria when methods of diet, purgation, and antisepsis have failed to bring any amelioration of symptoms.

4. Gastric and Duodenal Ulcers; the method often reveals unsuspected abnormality such as old scybala and mucus whose presence would delay recovery.

5. Certain cases of Rheumatism and Arthritis showing colonic symptoms; treatment by this method improves the general condition of the patient and so puts him in a better state to battle with the disability of the joints.

It is not claimed that by the removal, temporary or permanent, of colonic catarrh the patient is cured, but when the source of the catarrh lies in the bowel, the douche, daily or less frequently given, makes a considerable difference in

the symptoms. As a means of ascertaining the state of the internal lining of the colon it gives results which are valuable both in conjunction with and independent of the clinical evidence." - Dr Alexander George Gibson, MD, FRCP, in "Proceedings of the Royal Society of Medicine", Vol. 16, May 1923.

Treatment of Gastrointestinal Symptoms

"It must be remembered that they result from the toxemia and are usually central in origin. They are manifestations of the action of a toxin which resembles apomorphin in its effect on the vomiting centre. Consequently gastric sedatives, which are the measures usually employed, have frequently little or no effect. In the mild cases attention to diet and to the bowels will prove of benefit. Diarrhea, unless very severe and prolonged, is not to be combated since it is salutory in its effects.

It is one of nature's ways of controlling uremia by vicarious elimination, and interference in it may result in the appearance of other uremic symptoms and in death.

Purgatives, alone or with high colon irrigation, should be first administered. After thorough evacuation the diarrhoea usually become less marked. Attention should be directed to keeping the mouth clean, by frequent use of a toothbrush and of an antiseptic mouthwash." - Dr. Leonard G. Rowntree, MD, in "A Handbook of Practical Treatment", Vol.4, 1917.

Unwanted Publicity

"Dear Editor, I desire to bring before the nurses and the public the matter of my part in the alleged "cure" of a patient in East Orange, N. J.

The public press has circulated a story through which the public has been led to think that the patient was cured of intestinal poisoning in a week by a trained nurse, when 40 doctors had failed; that it was accomplished through a new

treatment originated and applied by me without the advice of any physician, and that he was giving the use of his $100,000 home in East Orange to be used as a Sanitarium for the treatment of intestinal diseases, in which he proposed to install me in order that many others might have the benefit of my new treatment, and of my application of the same.

The facts are as follows:

I had the case for treatment, but the treatment was recommended by the patient's physician.

The treatments were colonic irrigations, well known to all nurses and physicians, such as I have practiced on prescription of physicians for the past 15 years.

The patient claimed to be relieved of intense headaches after the 3rd treatment. I disclaim any knowledge of "cure" in the case, and his physician has not made any statement that any cure was effected. I accept no such case except on recommendation of a doctor. I shall in no way become associated with the proposed Sanitarium." - in "The American Journal of Nursing", Nov., 1924.

Colon Hydrotherapy Saved My Life

"The detoxifying effects were proven when colon hydrotherapy stopped the frightening symptoms of anaphylactic shock. Autointoxication is the process by which the body literally poisons itself by maintaining a cesspool of decaying matter in the colon. The toxins released by the decay process get into the bloodstream and travel to all parts of the body. Every cell in the body is affected, and because the toxins weaken the entire system, autointoxication and many forms of "incurable diseases" get their start in the colon.

An eminent French physician, Bouchard, coined the word "autointoxication" and described the various ways diseases may be produced by poisons generated in the body.

He called special attention to the intestines, especially the

colon, as a prolific source of poisons. Still another source of intestinal poisons is the putrefaction of that portion of the protein of food that fails to undergo absorption. It is entirely possible for a person to suffer from intestinal toxemia without constipation, as in cholera morbus, the diarrhoeas of infancy, chronic diarrhoea, and colitis; but it is impossible to have constipation without intestinal autointoxication.

Intestinal poisoning not manifesting immediate visible effects appear in disorders such as fibromyalgia, chronic fatigue, lupus, and arthritis. There are 2 effective ways of cleaning the colon: Colon Hydrotherapy and Enemas.

Colon Hydrotherapy provides a proven way to cleanse the colon, thereby increasing the healing process and maintaining optimal health. Remember that maintaining good health is an ongoing process requiring diligence. Your general health probably declined over a period of time; don't expect an immediate return to health. What you can expect is a steady improvement and reduction of symptoms.

Colon hydrotherapy can be most beneficial for restoring good health by:

1. Clearing the colon of old, hardened waste material and harmful toxins.
2. Restoring proper pH balance to the body.
3. Stimulating the immune system.
4. Allowing freer passage of nutrients into the blood.
5. Increasing prevention of toxic absorption via healthy mucosa.
6. Providing a favourable environment for bacteria and micro-flora for digestion.
7. Strengthening peristaltic activity in the colon and rectum.
8. Promoting a return of normal, regular bowel movements." - Dr Gloria Gilbere, ND, in "I Was Poisoned By My Body", 2001.

"Abnormal functioning of the intestinal canal is the precursor of much ill-health, especially of chronic

disease. Restoration of physiological intestinal elimination is often the important preliminary to eventual restoration of health in general". - Dr. Joseph E. G. Waddington in "Scientific Intestinal Irrigation and Adjuvant Therapy", 1940.

Dr Charles A. Tyrrell, MD, of New York, found 25 years ago that through keeping the colon clean by internal bathing, his health was restored after many physicians had pronounced his case hopeless. Since that time he has specialized on Internal Baths, and the result of this quarter-century of experience is summed up in a little book called:

"The What, The Why, The Way of Internal Bathing."

The Wonderful Mission of the Internal Bath

"Do you know that over three hundred thousand Americans are at the present time seeking freedom from small, as well as serious ailments, by the practice of Internal Bathing? Do you know that hosts of enlightened physicians all over the country are recommending and recognizing this practice as the most likely way now known to secure and preserve perfect health?

There are the best of logical reasons for this practice and these opinions, and these reasons will be very interesting to every one. In the first place, every physician realizes and agrees that 95%, of human illnesses is caused directly or indirectly by accumulated waste in the colon; this is bound to accumulate, because we of today neither eat the kind of food nor take the amount of exercise which Nature demands in order that she may thoroughly eliminate the waste unaided That's the reason when you are ill the physician always gives you something to remove this accumulation of waste before commencing to treat your specific trouble.

It's 10 to 1 that no specific trouble would have developed if there were no accumulation of waste in the colon. And

that's the reason that the famous Professor Metchnikoff, one of the world's greatest scientists, has boldly and specifically stated that if our colons were taken away in infancy, the length of our lives would be increased to probably 150 years.

You see, this waste is extremely poisonous, and as the blood flows through the walls of the colon it absorbs the poisons and carries them through the circulation, that's what causes Auto-Intoxication, with all its perniciously enervating and weakening results.

These pull down our powers of resistance and render us subject to almost any serious complaint which may be prevalent at the time. And the worst feature of it is that there are few of us who know when we are Auto-Intoxicated. But you never can be Auto-Intoxicated if you periodically use the proper kind of an Internal Bath, that is sure.

It is Nature's own relief and corrector, just warm water, which, used in the right way, cleanses the colon thoroughly its entire length and makes and keeps it sweet, clean and pure, as Nature demands it shall be for the entire system to work properly.

The following enlightening news article is quoted from the New York Times:

> *"What may lead to a remarkable advance in the operative treatment of certain forms of tuberculosis is said to have been achieved at Guy's Hospital. Briefly, the operation of the removal of the lower intestine has been applied to cases of tuberculosis, and the results are said to be in every way satisfactory. The principle of the treatment is the removal of the cause of the disease. Recent researches of Metchnikoff and others have led doctors to suppose that many conditions of chronic ill-health, such as nervous debility, rheumatism, and other disorders, are due to poisoning set up by unhealthy conditions in the large intestine, and it has even been suggested that the lowering of the vitality resulting from*

such poisoning is favourable to the development of cancer and tuberculosis. At Guy's Hospital Sir William Arbuthnot Lane decided on the heroic plan of removing the diseased organ. A child who appeared in the final stage of what was believed to be an incurable form of tubercular joint disease, was operated on. The lower intestine, with the exception of nine inches, was removed, and the portion left was joined to the smaller intestine. The result was astonishing. In a week's time the internal organs resumed all their normal functions, and in a few weeks the patient was apparently in perfect health."

You undoubtedly know, from your own personal experience, how dull and unfit to work or think properly, biliousness and many other apparently simple troubles make you feel.

And you probably know, too, that these irregularities, all directly traceable to accumulated waste, make you really sick if permitted to continue. You also probably know that the old-fashioned method of drugging for these complaints, is at best only partially effective; the doses must be increased if continued, and finally they cease to be effective at all.

It is true that more drugs are probably used for this than all other human ills combined, which simply goes to prove how universal the trouble caused by accumulated waste really is, but there is not a doubt that drugs are being dropped as Internal Bathing is becoming better known.

For it is not possible to conceive, until you have had the experience yourself, what a wonderful bracer an Internal Bath really is; taken at night, you awake in the morning with a feeling of lightness and buoyancy that cannot be described; you are absolutely clean, everything is working in perfect accord, your appetite is better, your brain is clearer, and you feel full of vim and confidence for the day's duties." - Walter Walgrove, January 1918

Intestinal Cleansing, Detoxification, And Rebuilding

“There is an old saying that: "Death begins in the colon." This is an oversimplification to be sure, but more accurate than not.

In fact, the road to health begins with Intestinal cleansing and detoxification, no matter what the disease or problem.

Unfortunately, most people confine their understanding of intestinal cleansing to its effect on fecal matter.

And while it is true that cleansing programs do draw old fecal matter out of the colon, limiting the discussion to fecal matter misses the big picture.

Understand that what we have is essentially a continuous tube from the mouth to the anus, and each part of that tube has a specific function to perform.

Among these are:

1. Digestion of the food we eat.
2. Transferring the nutritional value of that food into the body.
3. Processing the waste from that food and eliminating it from the body.
4. Serving as a drain pipe for waste produced as a result of metabolic functions within the body itself.
5. Serving as a drain for toxic substances absorbed through our lungs and skin, etc.
6. Functioning as a first line of defence in the body's immune system by identifying and eliminating viruses and unhealthy bacteria ingested with our food.

Any program of Intestinal Cleansing, Detoxification, and Rebuilding must address all of these aspects.

Specifically, it must serve to:

1. Remove all old fecal matter and waste from the colon (to clear the drain, if you will).

2. Remove all the heavy metals, and drug residues that have accumulated in the body as a result of having your drain plugged.

3. Strengthen the colon muscle so that it works again.

4. Repair any damage such as herniations and inflammations of the colon and small intestine.

5. Eliminate the presence of polyps and other abnormal growths that have been allowed to flourish because of an unhealthy intestinal environment.

6. Rebuild and replenish the various friendly bacteria cultures that ideally should line virtually every square inch of that tube—from mouth to anus." - Jon Barron in "In Lessons from the Miracle Doctors", 2008.

Chapter 12

Annual Reports of the Trustees of the Gardner State Colony

The Massachusetts Commonwealth, Public Document No.70, Department of Mental Diseases, Annual Reports of the Trustees of the Gardner State Colony

1929 - 1940

General Construction

Special Appropriations: An appropriation of $150,000 was granted for the construction of a "Treatment Building for Men". This building is now under construction by contract and should be ready for occupancy, 1 April 1930. The outstanding features of this building are the facilities for Hydrotherapeutic treatment, including one room with special equipment for Colonic Irrigation which form of treatment seems well worth trying out. Frederic A. Washburn, MD, Chairman." - in "Annual Report of the Trustees of the Gardner State Colony", Department of Mental Diseases, 1929.

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Treatment

"**Hydrotherapy:** Hydrotherapeutic Treatment has naturally been an important factor in the treatment of newly admitted cases, and in those long continued cases that show depression or excitation.

Colonic Irrigation: Colonic Irrigation Treatment done here, as an active treatment has proved so satisfactory and so encouraging in results that it has now become one of our most important forms of Hydrotherapeutic Treatment.

Thus far the results are most encouraging, and in the acute cases which are frequently found to be dehydrated, and who have been given improper care as to diet and bowel movement, it is very noticeable that with the giving of Colonic Irrigation the need of other Hydrotherapeutic measures is markedly reduced especially the need of wet sheet envelopments.

The equipment of the Colonic Irrigation room in the building, opened this year has certainly justified itself and in the building now under construction the Colonic Irrigation room, and equipment for the use of men will add materially to our facilities for treatment.

Personal Hygiene: The Personal Hygiene Department so favourably received when installed two years ago has continued its excellent work. It does much to increase the feeling of self respect and well being and the result is much personal comfort to the individual patient. Troublesome foot conditions have been attended to and 3,175 treatments have been given. These features all help to make this department well worth while.

Physical Therapy: Physical therapy treatments have been carried on actively as in the past and results have been very favourable. There were 798 patients treated; 6044 treatments given as follows: Infrared, 1,887; Morse wave, 766; High frequency, 546; Ultra Violet, Air Cooled, 1148; Ultra Violet Water Cooled, 693; vibratory, 34; massage, 80; passive motion, 25; dressings and bandaging preparatory to and after treatment, 865.

Occupation Therapy: Each case is study and the proper occupation therapy prescribed. One of the best forms of treatment of the moderately disturbed or the more chronic type has been again this year, as last, occupation at the canning department where from 20 to 50 have been occupied daily throughout the summer and fall months and has resulted in the canning of over 18,000 gallons of fruit and farm vegetables. Frederic A. Washburn, MD, Chairman" - in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1930.

The Value of Colonic Irrigation

"During the decade beginning with 1894 a number of investigators established the value of Colonic Irrigation. It was used extensively in cases of:

1. Haemorrhage,
2. Duodenal Jaundice,
3. Asiatic Cholera,

4. Renal insufficiency,
5. Uremia,
6. Mucous Colitis,
7. Dysentery,
8. Chronic Constipation.

It was used before many operations upon pelvic and abdominal viscera. And it was customary to inject from 500ml to 1.5 litres and often more of the solution before permitting its return. When roentgenologists began to give barium enemas in order to coat the lining of the lower intestinal tract preceding the taking of radiographs, they observed, through the fluoroscope, that barium solution introduced into the rectum through the ordinary enema tube, with the patient in the dorsal position, quickly passed into the sigmoid, descending, transverse and ascending portions of the colon and into the caecum.

This seemed to prove that it was not necessary to introduce a colon tube as far as had been customary. It also seemed to explain how Dr. Robert C. Kemp had obtained excellent results from the use of his double-current rectal irrigator.

Recent Observations

In one State Hospital where Colonic Irrigation was begun in May 1930, over 2,000 irrigations were given to 120 patients during the first 18 months. The following conditions have been relieved: Constipation, Mucous Colitis, Dysentery, Pruritis Ani, Acne, Furunculosis, Lichen Planus, Myalgia, Arthritis and Acute Colds.

A number of patients who were filthy, destructive and assaultive have been made clean and comfortable. The number of wet sheet packs that was formerly thought necessary for excited patients has been reduced to a minimum. Sedation is obtained for disturbed patients by combining colonic irrigation and neutral continuous baths. In order to obtain these results, it has been necessary for a graduate nurse supervisor to give most of her time to

training several nurses who are carefully and patiently administering the treatments.

The following described cases are examples of what is being accomplished.

Case Reports

Mrs. A. Age 55 years when admitted to the Hospital 5 September 1921. Married. Diagnosis, manic-depressive psychosis, mixed type. Tor several years this patient would have a quiet period lasting about 10 days, sometimes not longer than a week, during which she was agreeable and cooperative. Then a period of mania would begin suddenly and she would continue very active, destructive and assaultive for 4 or 5 weeks. During this time she was treated with neutral wet sheet packs and continuous baths.

Little or no sedation was obtained.

When she was given Hydrotherapy, or other nursing care during the first week of her attack it was necessary for 3 or 4 nurses to be present as she was very violent.

She was very filthy and untidy, smearing the walls and window of her room, her face and her body with faeces.

Would throw faeces at the nurses and physicians. She destroyed her clothing and bedding, draped her body with pieces of sheets and blankets and tied rags on her hair and extremities. She would lose weight, have inflamed eyes and furunculosis of the skin.

A radiograph of the colon was taken during one of her quiet periods. It showed a dilated rectum and sigmoid. In June, 1930, during a manic attack, she was given a first colonic irrigation.

Needless to say, several nurses were required to hold her on the irrigation table during the treatment. She was then placed in a neutral continuous bath where she remained much of the time, day and night, during her period of excitement. In the beginning, colonic irrigations were given on alternate days. Later she received two a week. This has been her treatment during manic attacks ever since.

Colonic Irrigations are omitted during her “normal”

periods. During the past few months (previous to April 1932) the manic attacks are not as severe.

They last from 7 to 10 days, while the quiet periods have lengthened to 4 or 5 weeks - a reversal in duration of the periods of quiet and of excitement. During the periods of excitement she is much easier to care for than she formerly was. She is less destructive. There is no skin eruption and no loss of weight.

Miss B. Present age 44 years. (April 1932) Admitted to a State Hospital 6 July 1911. Transferred to this Hospital 4 August 1914. Diagnosis, dementia praecox (schizophrenia). She is fairly well nourished. She reacts to auditory hallucinations. She stares intently, then lifts her nose and grimaces. She was considered a very dangerous patient and was kept in her room almost all of the time.

She was very destructive and assaultive. She would suddenly attack a nurse and pull her hair.

It would require 2 or more nurses to loosen her firm grasp on the nurse's hair.

She had filthy habits. Every morning the walls of her room and her mattress were covered with faeces, notwithstanding the fact that she was toileted during the night. With the hope of reducing the uncleanliness, colonic irrigations were begun.

In her condition at that time, it was impossible to obtain a radiograph of the colon. For some time she was given 2 Colonic Irrigations a week.

At present she is receiving only one a week. Owing to the fact that, in her demented state, she pays little or no attention to masticating her food, prune pits, eggshells, orange peel, banana skins, pieces of frankfurt, whole baked beans, corn, string beans and large pieces of carrot have been seen in the faecal returns.

As there was no soiled room or mattress for several months, she now sleeps in a dormitory. During the day she sits with other patients in the day room. She is no longer assaultive and one nurse can give the treatment.

Mrs. C. Age 56 years when admitted to the Hospital 13 November 1930. Married. Two married sons who hold good

positions. Diagnosis, manic-depressive psychosis, mixed type. This lady was thin and weighed 42 kg. Her blood-pressure was 150 systolic, 90 diastolic. She had no appetite and was sleeping poorly. Was very dehydrated.

Complained of her mouth being terribly dry, so that she "couldn't swallow." She was very depressed, self-accusatory and had delusions of persecution. No hallucinations in either the visual or auditory fields where elicited.

A radiograph of the colon showed a great mass of elongated, twisted sigmoid just above the brim of the pelvis and some prolapse of the transverse portion of the colon.

There was a history of chronic constipation extending over a period of 20 years.

Two Colonic Irrigations were given weekly for 2 months.

At first neutral continuous baths were given daily.

Later, they were given only after each Colonic Irrigation.

Her physical and mental improvement was rapid. She was discharged from the Hospital 7 February 1931. During the next 3 months she returned once a month for a Colonic Irrigation. At the time of her last visit, her weight was 52 kg. She reported that she had daily evacuations and remarked, "How odd it seems not to have to take a laxative every night." A near relative states that "Her health is better than it has been for years." - Dr Rebekah Wright, MD, Hydropath, Massachusetts Department of Mental Health, in "Hydrotherapy in Hospitals for Mental Diseases", 1932.

"Miss D. was 18 years of age when admitted to M. State Hospital. Diagnosis, mental deficiency. She had adjusted fairly well to institution life but at the age of 22 became very disturbed and for 6 weeks was excited, overactive, violent and destructive. She was given daily continuous baths but did not improve. She was transferred to another ward for wet sheet packs. No sedation was obtained in the first pack, which required the assistance of 5 nurses. She was in seclusion that night. Next morning the night nurse reported "no defecation."

A Colon Irrigation was prescribed and given. Large numbers of oxyuris vermicularis were observed in the

returns. A specimen was sent to the laboratory. Irrigations with an anthelmintic were given on the two succeeding days. They were repeated every other day until the ova disappeared from the specimens. Irrigations with plain water were given twice weekly thereafter until she; had received a total number of 15.

Two daily wet sheet packs were prescribed but in less than a week she asked to be excused from one of them in order to assist the nurse in the housekeeping of the suite.

This privilege was granted cautiously on account of her record of recent extreme violence. However, she improved rapidly. Packs were discontinued at the end of 3 weeks. Seven weeks after packs and irrigations were begun she was in a better ward, assisting with the work and attending the Saturday baseball game.

Mrs. E. was 44 years of age when admitted to D. State Hospital. Diagnosis, involution melancholia, 2 years later she was still depressed, very restless and occasionally slightly agitated. She was tall, ate poorly, appeared undernourished and was below average weight. She was constipated. When awake she paced the floor and picked up and swallowed pieces of lint, small bits of cloth, buttons and pieces of broom straw wrapped with thread. These were retained in the colon and accumulated in a palpable mass which showed in the radiograph.

Colon Irrigations of plain water were given every other day for 2 weeks, then twice a week until she had received 12.

During the 2nd, 3rd and 4th irrigations the accumulated foreign material, some apple, potato and tomato skins and dandelion leaves were recovered in the returns.

Considerable putrid mucus was washed out. Each colon irrigation was followed by an undercurrent douche.

The patient sat in a half-bath at neutral temperature. Water at a temperature of 43° C. was sprayed over the immersed abdomen, thighs and lower back for 5 minutes. The temperature of the water emerging from the hose was then reduced to 38° C. and sprayed over the patient's shoulders, arms and trunk. She was then thoroughly dried.

After the first week of treatment the patient's

improvement was surprising.

Constipation was relieved. Her appetite improved. She gained in weight. Her skin, which had been dry and pale, began to function normally.

Insomnia, depression, restlessness and agitation gradually disappeared.

She gained in poise and, at the end of nine weeks, was permitted to go home on a visit. A year later she had not returned to the Hospital." - Dr Rebekah Wright, MD, Hydropath, Massachusetts Department of Mental Health in "Hydrotherapy in Psychiatric Hospitals", 1940.

General Health

"While there has been the usual amount of illness in our entire population there has been no outbreak of any serious disease. One case of scarlet fever was found in a new admission but prompt isolation prevented its spread and in this case prompt recovery of the existing mental condition followed serum treatment of the scarlet fever.

Special Treatment

The more important methods of treatment during the year have been treatment by Hydrotherapy, physical-therapy, and occupational therapy.

Hydrotherapy

With the completion of a Treatment Building for Men we now have rather complete facilities for treatment by continuous bath, wet sheet envelopment, tonic treatment and Colonic Irrigation. There were 3,994 continuous bath treatments given. This form of treatment has shown beneficial results in a considerable number of cases and is still one important method of treatment.

Packs

An unsatisfactory designation for wet sheet envelopments. They have been continued where indicated

but our desire has been to reduce this form of treatment to a minimum.

Colonic Irrigation

With this form of treatment established here in May 1930, a large and increasing number of patients have been treated, and with rather surprising and unexpected results. It was found in a short time that Colonic Irrigation was taking the place of wet sheet envelopments, and to a certain extent of continuous baths, and we have been impressed by statements of patients themselves as to the benefits they have experienced.

It is, in our opinion, a most rational form of treatment in cases of mental illness. While there does not appear to be any specification in Colonic Irrigation it does seem to aid in combatting a number of abnormal conditions.

By Cleaning out the Colon, the system is afforded relief from human metabolic processes; by the absorption of fluid from the colon which takes place during treatments, dehydration is relieved; by mechanical cleansing action cleanliness is promoted.

This treatment has resulted in a rapid return to normal stability in favourable cases.

Sedation has also been obtained in a number of active cases and this has shown, as mentioned, in the reduction in the number of wet sheet envelopments applied.

The reduction was from upward of 600 per month to less than 10 per month, with some months none at all. This treatment is now actively carried on, and 4 units are in use. There have been 3,000 Treatments given and 3,728 fewer packs were found necessary than during the year previous.

Physical-Therapy

This department operates daily and has been of decided benefit. Through the use of the Ultra Violet Ray, marked benefit has been noticed especially in Catatonic Praecox (premature dementia or precocious madness), cases and in local lesions needing stimulation.

Infrared is used in all cases as an adjunct to the Ultra Violet Ray. By the use of diathermy relief from pain and discomfort has been noted and locally promotion of absorption. It has been of special benefit in the treatment of myalgia (pain in a muscle or group of muscles) and pleurisy (inflammation of the pleura (the double-layered membrane covering the lungs), which impairs their lubricating function and causes pain when breathing), without effusion.

In local infection the Ultra Violet has been of marked benefit.

In cases of constipation, prolapse of rectum and high blood pressure, relief has been obtained by the use of the high frequency current. In all cases treated at the Physical therapy Department, there appears to be improvement in physical health with improved appetite." - in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1931.

Occupational Therapy

1. Textile Department
2. Shoe Shop
3. Taylor Shop
4. Furniture Shop
5. Printing Department
6. Cannery: Here have been employed during the summer and fall months, groups of women, many of whom, are from the Treatment Building and who cannot be satisfactorily employed in many of the indoor activities, but who enjoy work at the cannery, and benefit materially in the preparation, largely out of doors, of vegetables and fruit for winter use.
7. Diversion & Recreation: Music, Shows, Events, Library, Community Activities, etc.
8. Religious Services.

Hydrotherapy

"This is largely carried on in the Men's and Women's

Treatment Buildings where special equipment is provided.

Each building has seven continuous bath tubs, a tonic treatment room, a pack application room, and pack rest room, and two Colonic Irrigation rooms.

During the year 3,620 continuous bath treatments have been given. This form of treatment we consider most important.

Colonic Irrigation

This form of Treatment was instituted in May 1930. Over 10,000 Colonic Irrigations have been given, each requiring approximately 45 minutes. We believe that internal hydrotherapy as well as external is indicated in a considerable number of cases and feel that it merits the same attention. It is, of course, difficult in most forms of treatment to claim that treatment and that alone has produced the physical or mental change noted, but we have noted in those cases suffering from Manic Depressive conditions there has been a quicker return to normal mentality, if the colon is kept well irrigated.

This we believe is due to the removal of toxic products from the colon, a relief to the dehydrated condition to the tissues and a relief from acidosis. Our most marked depressive cases are constipated and dehydrated especially upon admission to the hospital.

Results have not been outstanding in cases of Dementia Praecox, that is, from a psychiatric standpoint.

In Dementia Praecox, physical improvement has been noticed and because the colon is not permitted to become congested, many are less objectionable in their habits.

They are certainly quieter and cleaner, following this form of treatment. From the standpoint of the hospital, it has been interesting to note that there has been a marked lessening of destruction of clothing, sheets and mattresses. From our experience this form of treatment tends to produce a quicker return to mental stability in favourable cases. In active cases sedation is unquestionably obtained.

Wet Sheet Envelopment

We believe the number of wet sheet "packs" should not be large and our experience has been that the Hydrotherapeutic baths, and Colonic Irrigations have reduced them to a minimum.

The benefits that may be expected through hydrotherapeutic measures whether baths, packs, or irrigations, are pretty largely dependent upon the interest the physician may have in the selection of suitable cases for treatment and his interest in following them up and he must have the intelligent and active support of his nurses and Hydrotherapists. Success or failure it seems to me depends somewhat upon this interest and study of each case.

Nursing Service

The 2 year course in psychiatric nursing for attendants has been continued. Several lectures were given to groups of physicians and nurses from other hospitals in the technique and value of Colonic Irrigation." - in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1932.

Hydrotherapy

"The methods of treatment employed are: the continuous bath, wet sheet envelopment, Colonic Irrigation, cabinet and tonic baths, 3,151 continuous baths were administered. The wet sheet envelopment is used in a very limited way and was used in only 13 cases during the year. During the year 2,071 Colonic Irrigations were given.

This method of treatment is one of the most important in use.

It is a Method of Treatment especially mentioned by recovered patients as the one that did the most for them.

This form of treatment having been carried on here for several years impresses us more and more as to its value in both Mental and physical conditions. Tonic treatment with its combinations of salt glow, saline baths, fan douches, and

needle-spray, has been given in 1,591 cases. It has been of particular benefit in selected eases.

Physical-therapy

The physical-therapy department has been active through out the year filling prescriptions of the attending physician thru a trained operator.

5,672 treatments have been administered as follows: Infra Red, 1,950; Ultra Violet, Air Cooled, 1,395; Ultra Violet, Water Cooled, 848; high frequency, 714; Morse wave, 599; massage, 88. The value of this treatment in physical conditions has been demonstrated to a greater degree than in the treatment of mental conditions.

Personal Hygiene

This department was established several years ago primarily for the encouragement of a tidy personal appearance. 11,310 treatments have seen given this year.

As all people everywhere feel better if their personal appearance is satisfactory, so it is with many of the mentally ill. A better personal hygiene is a normalizing influence, the importance of which is too much neglected." - in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1933.

Treatments

"Under this broad title, may be included all major or minor efforts made to cure or to re-adjust the patient.

In some cases it may be a surgical operation while in others it may be kindly, helpful, cooperative understanding of the patient's situation in which an interested helpfulness would tend toward re-adjustment.

Here I will only review the activities of the various departments actually engaged in every day treatment such as Hydrotherapy, Physical-Therapy, Personal Hygiene, Occupational Therapy, Diversion, Recreation, etc. It is now definitely established that seclusion and restraint of the past are abolished. The use of strong sedative drugs is now

limited. It is recognized that a person nervously or mentally ill, is ill, and that the matter of segregation from the community is not sufficient but that one must endeavour to find the basis of the illness, and treat the cause if possible and through the various means at our disposal, assist so far as possible in re-adjusting the mechanism of the patient.

Frequently it is found that a patient is ill, because of physical causes, depressed, excited because of his environment, loss of business, etc. Each patient presents an illness peculiar to himself, no matter how we may group them as to nomenclature of disease. It is essential to find the cause in the individual and if possible correct it.

The 3 most effective measures of treatment are:

1. Removal from the former environment and supplying quiet, rest, nursing, diet and sleep;
2. Treatment by Hydrotherapy in any of its various forms best suited to the needs of the patient;
3. Opportunity for Diversion, recreation and employment that the mind may be diverted from trouble by substituting normal activities.

We have well equipped buildings for treatment by Hydrotherapy in its various forms. This equipment has been used daily throughout the year. Such treatment may take the form of the Continuous Bath for a sedative quieting effect; cabinet baths; salt glow; needle spray, and general tonic treatment for those who need a bracing treatment; Colonic Therapy which we have used so much and value so highly; the wet sheet envelopment for which we find a limited need and have restricted markedly owing to its restraining features.

If one were to judge by the opinions expressed by recovered patients, one must conclude that the Continuous Bath and Colonic Therapy are the 2 forms that have given the greatest relief and benefit.

Colour Experiment for Therapeutic Value

During the last half of the year Dr. Wilcox has conducted an interesting experiment as to the possible therapeutic value of colour. The Hall Laboratories of Boston kindly loaned us a revolving colour unit known as the "Psychochromosphere", which unit has been operated at intervals in the continuous bath suite. It was also used for individual therapy on post operative cases.

A total of 10 male and 19 female patients have been studied by this method, 9 of these were of the manic depressive group; 11 dementia praecox; one of psychopathic personality; 5 of mental deficiency with psychosis.

The result of this preliminary study suggests that colour may have a legitimate place in the therapeutic program of a hospital. In the continuous bath room there was a noticeable quieting effect on the patients. In a manic case there was a definite sedative effect; on a post operative un-cooperative patient rather a remarkable sedative effect was seen definitely shortening the period of surgical control.

Several have expressed themselves appreciative of a soothing relaxing effect. The work done thus far shows some promise. The mobile colour form unit seems to have some beneficial sedative effect." - in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1934.

Community Activities

For a number of years we have endeavoured to meet psychiatric needs of the community which is in many respects more important before mental illness has occurred than later when hospital care becomes necessary.

Treatment

"All medical and surgical conditions have received daily study and treatment as indicated. An effort is constantly being made to find, if possible, physical causes of mental

conditions. In many cases physical conditions are found and their corrections have brought about mental readjustment.

In other cases, although physical conditions were found, they were not sufficient to bring about readjustment by their correction. Many surgical conditions are encountered and if of a major character are treated by our consulting surgeons.

Hydrotherapy

Active treatment by Hydrotherapy has been carried on both on male and female services more actively than heretofore. The patients to whom Hydrotherapy treatment has been administered divide themselves into 2 main groups:

1. Those in whom manifestations of apsychosis have recently become evident (acute).
2. Those in whom a psychotic mechanism has been present over a considerable period (chronic).

The first somewhat smaller group comprises principally recent admissions. The second group comprises patients who have been hospitalized over a long period of time. Intensive study and treatment is necessary in the first group that as many as possible may be returned to community life, either recovered or improved.

The second group is studied in order to improve their existence and make life more comfortable and at the same time making them less of an administrative problem.

Both groups may be divided into active (disturbed), passive (depressed). For the treatment of the first group, great stress is placed on Hydrotherapeutic measures with Occupational Therapy, Personal Hygiene, Physical Therapy and all other agencies in common practice in hospitals each of which plays an important role. In the continued care group continuous stress is placed upon occupational therapy.

Hydrotherapy, personal hygiene, physical therapy, etc., play a minor but not as important a role. No one method of

Hydrotherapy is relied upon to the exclusion of other methods. Best results are obtained by a studied combination of various methods which make it difficult to evaluate accurately the merits of any one form of Hydrotherapy.

Common practice combines Continuous Bath Treatment with Colon Irrigations or with wet sheet envelopment or tonic bath treatment, each or all of which combined may bring about improvement. All such treatments are prescribed by physicians as indicated by the patients reaction, the prescription being changed as the need arises.

A statistical study of the year's work shows that members of the medical staff use the Continuous Bath and Colon Irrigation more than other forms of Hydrotherapy.

It also shows that of those receiving continuous bath treatment 20.7% are at home, while 24.4% are improved.

It is also seen that of those receiving Colonic Irrigation Treatment 28.4% have been discharged, while 29.6% are improved.

Of those receiving treatment by tonic bath 32.5% have been discharged, while 42.5% have been improved.

These results indicate, without question, that such treatments are of great value, and well worth the effort and fully warrant their continuation, they being the best forms of treatment yet made available.

Physical Therapy

This department administered 4,908 treatments. The treatments used most frequently were Infra Red and Ultra Violet. Infra red has to a considerable degree replaced the old fashioned poultice in surface infections being much cleaner, more constant and the results are better.

High frequency is used particularly in the treatment of sprains and fractures. Physical therapy is of particular value in shortening the period of disability. It provides ambulatory treatment in some cases which otherwise would be bed ridden; it is of special value in the relief of pain.

Marked benefit has been noted in the use of Ultra Violet in cases of erysipelas (large raised red patches on the skin).

It is of special note that patients are appreciative of this form of treatment.

Personal Hygiene

In this department 11,927 treatments were given. It is of particular value that patients be given every opportunity to maintain neatness in personal appearance and this department plays an important part in helping them to build up their morale. Particular attention is paid to the hair, face, hands and to providing relief in troublesome conditions of the feet.

Occupational Therapy

This has always been the outstanding effort at this hospital and in the past year has seen a still further growth, particularly in occupying those of the continued care group who show marked mental deterioration. This has been referred to by the Occupational Therapist as brightening up of the dark corners. A special group of 24 deteriorated women have received special attention with the result that a marked improvement has been seen in their awakened interest, a greater tidiness, greater activity and more interest in their surroundings. If no other new work has been attempted in this department, the benefit noted in this special group has been sufficient to justify its efforts.

All other departments, however, have continued on the same active level as in previous years and some advances have been made. At the Women's Industrial Building there have been an average of 105 patients in attendance. In the sewing room there have been an average of 35 women employed. Classes in occupational therapy have continued in the hospital and treatment buildings.

During the year we have made, as in other years, all articles of clothing for both men and women, none being purchased. 17,411 articles have been manufactured; 3,608 pieces of household and other articles made; 4,128 articles of bedding have been manufactured; 153 pieces of table linen while 38,953 articles have been mended and repaired. In the weaving department the total number of yards of cloth

woven was 33,252; articles made were bedspreads, denim, pocketing, strong cloth, sheeting, ticking, towelling, underwear and stockings.

All brooms, brushes of every description, mats, mattresses and pillows have been renovated in this department. The number of articles repaired during the year were 5,331. In the tailoring department the number of articles cut were 5,706; number of pieces of clothing completed, 2,286; 4,752 articles were repaired or remade. In the shoe department 930 pairs of shoes were made; 2,916 repaired; 290 rebuilt; 5,102 other leather articles were made. In the furniture department all articles of wood furniture are made; 131 pieces were made during the year; 2,142 pieces were repaired.

Aside from the fact that many articles are made, or repaired in one or all of these departments, is the important fact to the administration of the hospital that the greatest value accrues to those engaged in these various activities. It is for the benefit of the patients that these activities are carried on." in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1935.

Hydrotherapy

"The various special departments providing treatment of mental and physical conditions have been active throughout the year. Additional Hydrotherapists have allowed Hydrotherapeutic treatments to be given continuous 24 hours daily throughout the men's and women's service.

The number of treatments given were: 10,541 Continuous Baths; 513 Wet Sheet Envelopments; 2,452 Colonic Irrigations; 2,372 Treatment Enemas; 323 Sine Wave.

Physical Therapy

The physical therapy department has continued active and has occupied an important place in therapy. Approximately one out of every eight patients and employees received treatment in this department.

The benefit noted has in many cases been found to be coloured by psychological influences." - in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1936.

Occupational Therapy

"As in each previous year occupational and diversional therapeutic measures within the hospital have been given constant and careful study and stimulation. Occupational activity and occupational therapy treatment are of very definite value to both the individual patient and to the hospital as a whole. The various types and groups require varied interests governed by the physical and mental ability of the individual patient.

We have continued to stress the fact that the more interesting and constructive an activity or occupation may be made, the greater the benefit to the individual.

The average individual is generally more contented and happy if he is able to keep his hands busy and his mind occupied with work which interests him. It is commonly seen that an individual upon entering a hospital is there denied his usual activity or familiar form of work and finding himself in unfamiliar surroundings, either real or imaginary, does not know how to begin.

A readjustment is necessary. We have endeavoured to provide a modified normal atmosphere encouraging newly admitted patients to follow a normal daily routine included in which is definite constructive employment, diversion and recreation. An endeavour is made to provide daily activities which will prevent, so far as possible, a labouring within one's self or within the past.

Our occupational therapists are not concerned so much with exhibits and completed work of outstanding ability and craftsmanship as they are in meeting patients on practical grounds providing interest and a type of work which will be of maximum service to the individual and if possible to the hospital population as a whole.

While the more able bodied are encouraged to occupy

themselves in constructive work, other groups are engaged in forms of occupational therapy which do not require perfect work but which are used as stepping stones to something more advanced requiring greater concentration and result in pride of accomplishment.

A group which offers a constant challenge looking not toward recovery but more toward social adjustment, is a rather large group of the deteriorated restless and untidy.

This group is primitive in action, perhaps repulsive and particularly difficult to approach. Much effort is constantly devoted by the occupational therapists to this group looking toward the establishment of regular habits with encouragement of personal interests in dress and tidiness. Here diversion and occupation become important not so much in stimulating creative work but in self control and development.

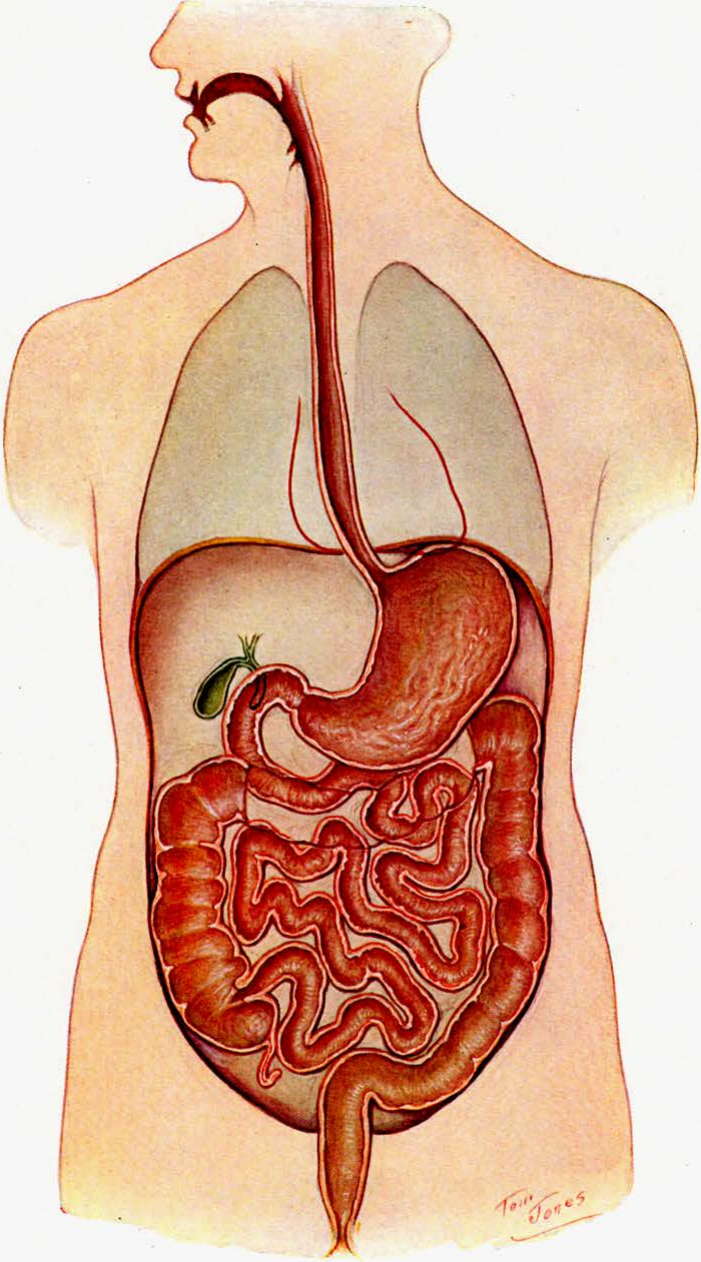
Out of door diversion such as small flower and vegetable gardens have been of particular interest to this group. This is a group which requires and has received great effort on the part of the occupational therapy department.

The carrying on of the necessary activities of the hospital in its various departments is considered important occupational treatment assisting in recovery from existing mental conditions where possible but equally important is the normalizing of the lives of each individual. Occupational therapy, therefore, plays an important part in the operation of the kitchen, laundry, farm and the various constructive activities of the industrial department.

Personal Hygiene

The effort of this department has been to encourage self respect which effort has been well rewarded. This department is one of the most popular and is occupied full time. Special demands are made upon it before entertainments, dances and special occasions at which the ladies like to look their best.

This department has done much to improve the appearance of the women and with improved appearance is



The Normal Alimentary Tract

Small bowel has been shortened for convenience of illustration.

noted improved disposition, greater contentment and greater self respect." - in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1937.

Treatment

"**Hydrotherapy**

Hydrotherapy remains the form of treatment most often used in excited or depressed conditions, making unnecessary in most cases forms of restraint considered treatment in years long past. Although accepted as treatment by patients, it is more frequently requested than objected to. In recovered patients it is most often pointed out as the form of treatment which did the most for them, particularly is this so of Colonic Irrigation and Continuous Bath Treatment.

The number of tonic treatments given was 3,905; Continuous Bath 9,197; wet sheet envelopment 3,868; Colonic Irrigation 1,404; sine wave 372.

Physical-therapy

289 different patients received a total of 4,961 treatments in the electric therapeutic and physical therapy department. The forms of treatment most commonly used are: air cooled and water cooled Ultra Violet, infra red radiant heat, diathermy; sine wave; massage; ossilator and special exercises.

The result of treatment by these means for all conditions is:

Well	34%
Improved	60%
Unimproved	6%

An analysis of the work of this department shows that 29% of those treated received treatment because of their mental condition while 41% received treatment because of physical conditions, pains, sprains, fractures, skin diseases, etc." - in

"Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1938.

Treatment

"Metrazol (drug known as Pentylenetetrazol, pentylenetetrazole, pentetrazol, pentamethylenetetrazol, Corazol, Cardiazol, deumacard, PTZ) treatment has been administered to a few selected young praecox patients without material improvement, or change in their conditions.

Hydrotherapy

The usual procedure in Hydrotherapy as carried on in all mental hospitals has been continued actively at this hospital.

The most active type of treatment has been the Continuous Bath and this has been in continuous operation 24 hours daily at the Men's and Women's Treatment Buildings.

Next in importance, if not in many ways of equal importance, is Internal Hydrotherapy in the form of Colonic Irrigation.

It would seem from statements of those who have recovered and returned home that the benefit received from Colonic Irrigation treatment exceeds in importance in the minds of those recovered more than other forms of treatment.

Many of those received from home are Found Suffering from Insufficient Diet and Fluid Intake, and correction of these deficiencies plays an important part in treatment. From the beginning of active Colonic Irrigation Treatment in 1930, there has been seen an automatic reduction in the number of wet sheet envelopments given. This was not expected but just automatically occurred, so that the giving of wet sheet envelopments is reduced to a minimum.

The following shows the number of treatments of each type of Hydrotherapeutic Treatment given during the year:

Tonic Treatment ….....134
Continuous bath ….... 8,364
Wet Sheet Envelopment …..... 2,546
Colonic Irrigation …..... 1,177

Occupational Therapy

"Occupational therapy is based on the fundamental principle that normal activity, diversion, exercise and recreation is necessary for the maintenance of mental and physical health, and a realization that it is not entirely the work provided or the methods used but rather the patient's reaction to them that is the criterion for evaluating the true therapeutic worth of occupational therapy as an aid in the rehabilitation of a person suffering from disease or injury.

The correlation of therapeutic treatment with occupation can only be gainfully used to be of real and lasting benefit to the patient by following no designated methods of procedure which are supposed to apply to like cases but rather by studying each person as an individual and planning a course of work as treatment that will meet his individual problems and benefit his individual needs.

We are concerned with both his mental and physical condition, his capabilities which need to be broadened and developed to their fullest capacity and his limitations which need to be worked around in such a manner that they do not become of paramount importance to him and do not have a depressing or narrowing effect."- in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1939.

Podiatry

"A podiatrist is employed two half days each week for troublesome conditions of the feet. A total of 525 individuals received treatment. The women treated are those who are unable to come to the Personal Hygiene Department, which department is intended for women only and men are not treated here.

Hydrotherapy

This being one of the most important forms of treatment in use in mental hospitals it has been actively continued here. The treatment rooms and baths in both the Men's and Women's Treatment Buildings have been in continuous 24 hour operation under trained operators.

A majority of patients admitted are found to be suffering from insufficient food and fluid intake. Here the Continuous Bath and particularly Internal Hydrotherapy known as Colonic Irrigation plays a very important part in treatment.

The number of Hydrotherapeutic Treatments given during the year was 4,069 Tonic Baths; 4,339 Continuous Baths; 642 wet sheet envelopments; 252 Colonic Irrigations." - in "Annual Report of Trustees Gardner State Colony", Department of Mental Diseases, 1940.

Chapter 13

Annual Reports of the Trustees of the Westborough State Hospital

The Massachusetts Commonwealth, Public Document No.30, Department of Mental Diseases, Annual Reports of the Trustees of the Westborough State Hospital 1932-1933

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J. Lowell Bacon, MD, Southborough

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Roland 0. Parris, MD, Rhinologist and Laryngologist
W. D. Rowland, MD, Ophthalmologist
Henry M. Emmons, MD, Ophthalmologist
Edwin W. Smith, MD, Proctologist
Ralph C. Wiggin, MD, Urologist

"Hydrotherapy facilities have been extended, and in the form of continuous bath treatment, neutral pack and Colonic Irrigation constitute one of the most valuable methods of treatment of mental cases." - in "Annual Report of Trustees Westborough State Hospital", Department of Mental Diseases, 1932.

"Our Hydrotherapeutic facilities have been increased and are used to the fullest extent principally in the forms of continuous bath treatment, neutral packs and Colonic Irrigations, these measures having been found through long experience to be the most valuable in the treatment of mental cases." - in "Annual Report of Trustees Westborough State Hospital", Department of Mental Diseases, 1933.

Chapter 14

Colon Hydropathy in the Treatment of Mental Disease

"It happens for instance, that in this or that part of the thick viscera "Intestinum Crassun", through whatever cause, there is formed a contraction, or stricture, through which the substances to be ejected, when they remain for a long time, become dry and indurated, and are therefore not able to pass through so as to be ejected. And, is it not well known, that a great number of diseases belonging to the Psyche, have their principal and original cause and seat in obstructions of the thick viscera? Have not the celebrated Esquirol, Pinel and many other, observed and shown by facts in mental sufferers, the viscera, particularly the colon, obstructed, etc." - Dr. J. Edward Feldmann, MD in "Theory and Practice of Hydropathy", 1843.

Copro-Psychiatria

"We have now to speak of the abnormal length and arrangement of the colon, an anomaly the lowest degree of which so often presents itself as the M-shaped depression of the transverse colon into the hypogastrium, while its higher grades are associated with the formation of many abnormal flexures and S-shaped curves.

This abnormal arrangement of the colon was often mentioned by the older writers (such as Ruysch, DeHaen, and others) as something important, described with great detail, and not unfrequently illustrated by many sketches.

In Esquirol's time far too much weight in the etiology of

mental diseases was attributed to this and to the coprostasis which was believed to be its necessary consequence, going so far as to establish the so-called copro-psychiatria, (Griesinger, Path. u. Therap. d. psych. Krankh. S. 201, et seq. 1845). The records contain numerous examples in which habitual accumulation of faeces in the rectum and sigmoid flexure (especially in old people), has led to permanent arrest of the peristaltic action of the colon, to paralysis with hyperextension, and thus to ileus, which either ended fatally or yielded to proper treatment, with evacuation of enormous masses of faeces.

Habitual coprostasis, due to enfeebled peristaltic action of the colon, is very common in advanced life, in those of sedentary habits, in atrophy of the intestine occurring in the course of chronic cachexias, and especially, too, in lunatics. Under all these circumstances, we not unfrequently find, as a result of habitual arrest of the faeces, that the course of the colon is abnormally sinuous.

The frequency with which these anomalies are found in the bodies of lunatics led physicians to attribute too much importance to them in the etiology of mental diseases." - Dr. H. von Ziemssen, MD, Professor of Clinical Medicine, Munich, in "Cyclopaedia of the Practice of Medicine", Vol. 7, 1876.

The Role of Auto-Toxis in the Production of Insanity

Report on Nervous and Mental Disease
Cerebro-Mental Disease from the Etiological and Clinical Standpoints

"At a general meeting of the Medical Society of London, held on May 11th last, Dr. Allan McLane Hamilton, MD of New York, presented a contribution on this subject. He had conducted clinical observations and experiments on animals to determine whether there was any specific or noso-toxicity of the urine of the insane, and if so, its nature; next to discover how important and general was the theory of uric acid poisoning; and, again, whether mental disorders were

produced and modified by an auto-toxaemia, whether the offending substances were the leucomains or the intrinsic products of putrescence in the intestines.

The resulting effect seemed to depend upon the increased specific gravity of the urine, and on the evidences of intestinal disorders and malnutrition. The urine of the paretic was always exceedingly toxic, which property was possessed by that of the periodic patient whose urine showed a large amount of indican, while in only one of the other cases of mania in which the specific gravity of the urine was high was any result obtained by the injection.

His cases unquestionably bore out the assumption that disturbances of the gastro-intestinal tract were attended whit bacterial necrosis, and the introduction into the general circulation of certain very virulent toxic agents, whose effects were expended mainly on the nervous system.

A sudden and rapid development of incoherence with malassimilation, highly-coloured urine, and delusions that were unsystematised, clearly suggested an inquiry into the condition of the organs of digestion, and the first step should be a complete examination of the urine and faeces.

The presence of indican in the urine of the insane has great significance, for in all the cases that were not simply evolutional it had been discovered in excessive quantities, in connection with the development or as a feature of an exacerbation of an existing mental disorder. In melancholia the amount of indican depended upon whether the disease was of the stuporous or agitated variety, the quantity not being nearly so great in the former.

Variations in the haemoglobin and red corpuscles were closely associated with the absorption of toxic substances, the extent of which was announced by the increase of the combined sulphates, while the physical appearances were those of malnutrition.

Undoubtedly many puerperal insanities, especially those of the maniacal variety, were due to faecal accumulation.

Alcoholic insanities, as well as other forms, whether acute or chronic variations prevailed, must be studied with regard to the condition of the intestines. The management of these

cases not only included the provision of an absolutely suitable diet, but the use of antiseptics and mechanical means for cleansing the alimentary tract.

It had been shown that the lower bowel was usually the seat of infection, hence the necessity of thoroughly washing out from as high a point as possible. Salicylate of sodium bad been found the most reliable intestinal antiseptic.

In replacing the diminished haemoglobin and red corpuscles best results had been obtained from a mixture of glycerine of the red marrow of small bones with bullocks blood.

Dr. Hamilton, MD arrives at the following conclusions:

1. Urines rich in indican contained very little or no preformed sulphuric acid, and were toxic.
2. When the sulphate ratio is materially changed it probably indicates auto-toxis, in connection with an increased amount of combined or ethereal sulphates.
3. Such indications were generally found with acute insanities in which rapidly developing symptoms occur.
4. Changing illusions and hallucinations, unsystematised delusions, confusion, with verbigeration in connection with insomnia, pallor, intestinal indigestion, constipation and rapid exhaustion are due to auto-toxis.
5. Paranoiac states, or those in which concepts are the features, chronic stuporous conditions and certain forms of dementia have little to do with the formation of intestinal products of putrefaction.
6. Various post-febrile, traumatic, alcoholic or drug insanities are those in which auto-toxis is most constant.
7. Variations in excretion of combined sulphates keep pace with the changes in the progress of an established insanity, epileptiform attacks being directly connected with putrefactive processes.
8. The most successful treatment consists in Lavage, Intestinal Douches, gastric and intestinal antisepsis, by means of hydrochloric acid, borax, salicylate of sodium, charcoal, guaiacol, or naphthalin in small and repeated

doses, and the administration of a combination of the red marrow from the small bones, blood and glycerine." - Dr Ringrose Atkins, MD in "The Dublin Journal of Medical Science", 1897.

On the Nature of Insanity, and its Treatment by Irrigation and Prolonged Baths

"M. Brierre de Boismont recently presented to the Paris Medical Society a Report upon a Memoir by Dr. M. Turck, Physician in Chief to the Vienna General Hospital, upon the Nature and Treatment of Insanity. He comments upon some of the Theories of Insanity which have prevailed. Broussais, as is well known, affirmed that insanity always arises from irritation of the brain (and in this statement he has met with many more supporters in this country), but M. Brierre de Boismont asks:

> *"Who has seen the irritation of these capillary vessels? What are the anatomical characters?"*

Most mad-doctors do not admit the existence of pathological lesions, or only regard them as consequences of the disease. I dissected, with M. Bricheteau, the brain of a madman, who had been the subject of intermittent mania for 12 years, and who died after an attack of acute hydrophobic delirium of 12 days duration, and we were unable to indicate any appreciable lesion.

The same thing occurred with respect to an imbecile woman who, after inhabiting my establishment for 18 years, also died after a third attack of acute delirium. It is endeavoured at all hazards to explain the disorders of the mind by anatomical considerations, even when we are quite unaware of what material change takes place in the brain and nerves for the execution of their functions.

Every day we observe the most varied and gravest morbid changes without their exciting any influence in

producing a state of insanity. The greater or less afflux of blood can so little be considered as the necessary cause of insanity, that frequently apoplexy induces no change in the functions of the intellect, even at the time that effusion has occurred, or paralysis is present. In the physiological condition, the general circulation (as may that of the carotids by some local malady) may be accelerated with out the reason suffering. So far from inducing insanity, the greater afflux of blood to the brain induces sleep and somnolence.

Moreau has of late endeavoured to revive the above theory, by stating maniacal excitement to be the primary modification of the intellect, and essential condition of the manifestation of any description of insanity.

But this word excitement means an excess of organic action, and while this will induce certain forms of insanity, others are produced by quite opposite causes.

Cerebral Anaemia gives rise to insane conceptions as well as hyperamia. If febrile excitement induces cerebral disturbances, we observe such disorders only commence in many cases when the decline of the fever has plunged the patient into a state of sinking. With an excitement represented as always "identical in itself, the most varying forms of insanity have all the same point of departure. A woman sees her child perish, she becomes stupefied and falls into a kind of imbecility, and are we to refer her case to this maniacal excitement?

A man, towards the end of a chronic disease which has reduced him to the last stage of marasmus, is seized with a mild form of delirium, in which he believes he is quitting the hospital and following his occupation. Are we to refer this to the same cause? According to this theory, more or less vigorous antiphlogistic treatment should necessarily be put into force.

Now, a man is brought to you in a state of furious delirium, and you bleed him until he becomes calm, and the result will frequently be an incurable dementia.

Many monomaniacs are much injured by bleeding; and many others recover from their hallucinations by moral treatment alone; and even M. Moreau, the founder of this

variety of the irritation of Broussais, states they are frequently relieved by the datura stramonium.

> *"M. Leuret has not sought the cause of the disease in cerebral changes, but states that it may exhibit itself unconnected with any physical symptom, and that it is but an error of the mind, a purely moral disease calling only for moral remedies, our object being to substitute one impression or passion for another. Attributing insanity to a disease of the mind may appear revolting to spiritualists and excite the smiles of the materialist; but we must admit that the question is not so simple as it seems. Elsewhere I have endeavoured to suggest another theory, by establishing that man's ideas spring from two sources. He lives in the midst of an atmosphere of false ideas proceeding from his senses, from education and the social condition in which he exists, and it is there we must seek for the origin of manias, monomanias, etc. In this way we can understand how certain ideas may be come diseased, without the divine breath which animates him being implicated. In this point of view, the beautiful results which have attended moral treatment are intelligible enough. We are, however, far from denying the existence of cerebral change, although this as yet has not become appreciable; but it is but a secondary fact in the doctrine of mental diseases, important though it often is in its therapeutical relations."*

M. De Boismont next refers to M. Turck's treatment mode of insanity, which, indeed, in a modified manner, and without any knowledge of M. Turck, M. Brierre de Boismont has been in the habit of employing with success for some years, and an account of which he furnished to the Academy of Medicine in 1842 and 1846. M. Turck treatment consists in the prolonged use of tepid baths. The bath must be

prolonged "during a whole or several days," and, if required, repeated during a period of several months. One girl was cured by a "single bath of 10 days' duration."

By such treatment M. Turck declares he has cured four-fifths (4/5) of the cases which have come before him. M. De Boismont attaches much importance to the curative agency of prolonged baths and irrigations.

His former conclusions upon the subject are here reprinted:

1. All the acute forms of insanity, and especially of mania, may be so cured in a space of time varying from 1 to 2 weeks.
2. The treatment consists in the employment of prolonged baths and irrigations.
3. The duration of the baths should be in general from 11 to 12 hours, but it may be extended to 15 or 18.
4. The irrigations of the head by a gentle stream of water should be continued during the entire continuance of the bath, unless the patient becomes composed, when they may be suspended.
5. When the patient has taken from 8 to 10 baths without marked amelioration they must be suspended, to be resumed at a future period,
6. The temperature of the baths should be from 82° to 86° F., and that of the irrigations 60° F.
7. Of all the forms of insanity, acute mania best yields to this treatment, then simple acute delirium, delirium tremens, puerperal mania, and melancholy monomania with acute symptoms; but, in several of these forms of disease, the cures are neither so rapid nor so permanent as in acute mania.
8. Chronic mania with acute symptoms, and chronic mania with agitation, may be ameliorated. - Revue Medicale, Nov. 1846." - in "The Medico-Chirurgical Review", Vol.50, 1847.

Hydrotherapy in Insanity

"I have come to have very much reliance upon Hydriatic measures properly applied in the treatment of these cases, the simpler forms can be readily applied in almost any household. One of the most effectual methods to quiet excitement, secure sleep, and promote elimination is the Wet-Sheet Pack. Were I called to a private house this morning to see a case the type of which is familiar to us, with wakefulness, agitation, psychomotor restlessness, and the train of symptoms that accompany acute maniacal excitement or agitated melancholia, I should, if it were possible, first give the patient a large simple Enema of water at 38°C.

I would then thoroly wash out his stomach with sterilized water at about 38°C., then wrap him up in a large wet sheet saturated in water at about 44°C. and then thoroly roll him up in blankets, using 2 or 3 or more if necessary.

A little experience will enable one to so envelop the patient in the wet sheet and blankets that however restless and uneasy he is, it forms one of the very best methods of restraint.

We very often find that a patient in a wet-sheet pack soon quiets down and presently drops asleep, sometimes sleeping the night in the pack. In any event he often gets from 1, 2 or 3 hours of refreshing sleep. When the pack is removed he can have an alcohol rub or a little light massage, which any intelligent person can give with a little instruction.

There are dangers of collapse, but the signals of such danger are so plain that the doctor will recognize them very readily, and his patient may be removed from the pack and such methods of stimulation resorted to as may seem to be required.

When in the pack, ice to the head and hot-water bottles to the feet are important. This Wet-Sheet Pack may be repeated when the patient again becomes restless or disturbed.

The quantity of water which he drinks while in the pack promotes elimination, and this method is altogether so much more rational and simple, than the heavy dosage by

drugs, that I think it important that it should be brought to the attention of every physician who is likely to have a case of acute insanity upon his hands for 2 or 3 days or longer." - Dr. Hitchcock, MD in "Medical Age", 1903.

> *"Diet and above all antiphlogistic (to reduce inflammation) one, regimen, specially exercise of the body, warmth, loosening of the bowels, now and then an emetic: among which if they were used, warmth was likely to come first. We find these recommendations by the Hippocraties for curing the insane." - Dr Smith Ely Jelliffe, MD, in "Notes on the History of Psychiatry", Alienist and Neurologist, 1917.*

Trenton Psychiatric Hospital

"The first of New Jersey's public mental hospitals, Trenton Psychiatric Hospital, began providing services on 15 May 1848. In 1907, Dr. Henry Andrews Cotton, MD became the medical director, and a new era in the treatment of mental diseases began. Among other improvements, Dr. Cotton is credited with abolishing all forms of mechanical restraints and implementing daily staff meetings to discuss patient care. Over the years, new treatments such as Hydrotherapy, Occupational Therapy." - Dr. Nila Sheth, MD, in "American Journal of Psychiatry", Dec. 1999.

"Since 1925 we have been using physiotherapy in the treatment of gastrointestinal stasis. This is successful in about 80% of cases. Colonic Irrigations to the number of 30 are given to each case on alternate days.

On alternate days diathermy and Morse Sine Wave are given to restore the muscular tone of the diseased colon. A combination of these 2 methods has produced very good results. This can be shown not only by the cessation of constipation, but by a comparison of the x-ray studies made prior to and after treatment." - Dr Henry Andrew Cotton,

MD in "Annual Reports of the Officers of the New Jersey State Hospital at Trenton", 1929.

"A certain amount of toxicity can be coped with but a relative overflow causes the outbreaks of insanity. In nearly every mental case that is physically ill at the time of admission to hospital.

I no longer recommended colectomy, but used copious colonic douches instead. The results of this form of irrigation in 600 cases had shown to been very satisfactory." - Dr Henry Andrew Cotton, MD

Gastro-Intestinal Motor Functions in Schizophrenia

"Radiological observation of gastrointestinal motor functions in 51 cases of schizophrenia affords the following general conclusions:

1. Definite changes in these functions are found.
2. The changes are somewhat characteristic of the different clinical types.
3. The more acute the psychosis is, the more abnormal are the changes.
4. Gastrointestinal motor functions are normal in chronic deteriorated cases.
5. The visceral reaction to intense emotions in acute schizophrenia is analogous to that observed in lower animals when experiencing fear, rage, etc.
6. In acute schizophrenia the colon is most susceptible to svmpathetic control.
7. In acute schizophrenia sympathetic control of certain functions and concomitant autonomic control of other functions contributes to disorganization of digestive processes.
8. In 70%. of acute, actively hallucinating cases there is retention of barium or of food residue in the colon for a period longer than 5 days." - Dr George W Henry, MD in "American Journal Psychiatry", 1927.

The Colon in Mental Disease

Dementia Praecox

"It is certainly reasonable to expect to find in the psychotic individual the most profound and prolonged of emotional states; this being unquestionably true, and if emotions alter the functioning of the gastro-intestinal tract, then the most profound and prolonged of functional alterations should be observed in the gastro-intestinal tracts of psychotic individuals. It is the purpose of this paper to present a study of one portion of the gastro-intestinal tract, the colon, in one type of mental disease, dementia praecox.

The dominant emotional states, subjective and objective, of the patients were classified as, indifferent 35, agitated 6, and tense 7. The emptying time of the colon was 48 hours for 14 cases, 96 hours for 14 cases, 144 hours for 9 cases, 192 hours for 3 cases, 240 hours for 3 cases, 288 hours for 3 cases, and 336 hours for 2 cases. Dementia praecox, as it is conceived today, is a mental illness characterized by supposed marked deviations from the normal in personality, which deviations are emotional, overt, and intellectual. The changes in body chemistry or physiology found in an individual with dementia praecox are an expression of his psychosis and may not only reflect it but contribute to it.

A normal individual is usually considered as an entity in existence; as an individual reacting to his internal and external environment and expressing this reaction by thought, word or action. Upon occasion some emotional tension will bring about some physiological response which we are able to observe; such as, shaking in fear, crying in sorrow, striking in anger. These physiological responses are all the result of the emotion, certainly not the cause of it.

Such responses can also be participated in by the gastrointestinal tract, as when a reaction to an emotion occurs such as nausea and vomiting in disgust, constipation when worried, and sudden evacuation in moments of intense fear and excitement. These reactions are all logical and have repeatedly been explained by the equation strong

emotion reacts upon the autonomic nervous system which in turn elicits certain specified responses from the periphery.

Thus the response of the colon to the emotion is an expression of the psychosis and if the response assumes malignant proportions (such as retention of faeces for days until such retention may produce physical symptoms) then the physiological response may contribute to the symptomatology of the psychosis.

It is rather hard to conceive of the gastro-intestinal tract acting in a voluntary manner of it taking the initiative with no stimulus whatsoever and setting the pace whereby false observations are liable to be made. It would appear that since the chemistry and physics of the gastro-intestinal tract are controlled by the autonomic nervous system that any functioning of the tract would be in response to some stimulus which would be controlled by this system.

Since this system is not conscious, it is only reasonable to assume that it could not voluntarily be controlled; that the functions of this tract would be true reflections of stimuli whether they be emotional (conscious or unconscious), chemical or physical, overt or intellectual.

Thus, we find that:

a) Emotions do affect the gastrointestinal tract and can condition it,

b) These emotions can be conscious or unconscious,

c) They can be completely concealed by superficial or false emotions which act as a blind giving the real emotions room for free play,

d) The colon which is not subject to such concealment reflects the true emotional state of the individual,

e) In the majority of cases of dementia praecox there is some imbalance of the autonomic nervous system as expressed by studies of the colon.

There is no question but that in the study presented herein, in the colons of individuals with dementia praecox there is a definite abnormality in the emptying time and/or

tonus in a large number of cases.

As is well known the normal functioning of the large bowel is dependent upon a normal balance existing between the sympathetic and parasympathetic nervous systems.

When there is some imbalance, regardless of the precipitating factor or factors, there results abnormal functioning of the colon. Since in many cases of dementia praecox there exists this abnormal functioning of the large bowel, it would appear unnecessary to ascribe it to any other mechanism than to the autonomic nervous system imbalance.

The mechanism underlying this imbalance is in most all probability the emotional, overt and intellectual imbalance which constitutes the psychosis." - Dr Purcell G. Schube, MD in "Psychiatric Clinic, Boston State Hospital", 2 July 1936.

Chapter 15

The Relation of Intestinal Autointoxication to Mental Diseases

"At one time or another, by someone, the gastrointestinal tract has been blamed for nearly every disease and symptom from which mankind suffers. It was only natural, then, that when the awakening came about mental diseases that this channel should be credited with being the cause of a large amount of the trouble. Especially was this plausible when the most cursory examination showed that a disturbed intestinal tract and a disturbed brain were nearly always associated.

Closer observation soon showed, however, that, while these 2 systems were conjointly disturbed, they did not always bear the same relation to one another. It was soon noticed that they varied in their precedence and that the autointoxication caused numerous and diverse symptoms both in the brain and other parts of the nervous system. Clinical experience indicates some very marked and dependable conclusions.

Mental Derangement and Constipation

No one, for instance, will deny the fact that all persons mentally deranged show aggravated symptoms when their bowels become constipated. If they are depressed, the gloom will become greater; if they are maniacal, the excitement will invariably increase. A few days ago there was brought to us a young man suffering from a marked hebephrenic type of dementia praecox.

Even a muffled room could not exclude his screaming and talking. Just 20 minutes after the voidance of a copious high enema he was quiet and asleep. And he has remained

comparatively quiet ever since, excepting when his bowels have become constipated, at which times he has been very noisy. A jeweler suffering from a so-called incurable senile dementia became so melancholy that he threatened his own life.

A vigorous course of enemas along with mas sage and regular living, and he was healthier and more robust than for years. And so on, the cases could continue endlessly, showing that mental disorders are aggravated by intestinal autointoxication.

Symptoms Indicating Autointoxication

Another set of facts proving the same statement is the condition of the majority of the mental cases coming under treatment. Practically all of them present several of the following symptoms:

1. Muddy skin; sometimes making them look as yellow or dark.

2. Sickening sweet breath; so offensive that a whiff of it will nauseate the examiner. This breath should not be confused with the bromide breath, it is sweeter and more nauseating than that; nor with the tonsil and foul-mouth breath, it does not resemble decaying material as that one does. It is more like the acetone breath, only sweeter.

3. Indicanuria. We have been surprised, time after time, at the tremendous amounts of indican our mental patients pour out in their urine. And we have also learned that many clearing spells can be prognosticated long in advance of the clearance by observing the density of this reaction.

4. Impacted Colon. Every mental patient should undergo a thorough abdominal examination. I have been able to demonstrate, many times, to my assistants the exact course of the colon by palpating this hard, sausage-shaped mass in the relaxed abdomen. (And, by the way, a relaxed abdominal

wall is a serious handicap to improvement in a mental case.) In many instances this mass is so perfect that almost the entire course of the organ from the ileocecal opening to the anus can be made out.

5. Packed Rectum. It is truly wonderful the condition the rectal contents may attain. In most cases, especially where they have been kept under opiates, the examining finger feels much as though it had been thrust into a gravel bank.

Scybala so hard that they ring like stones when they strike on a solid object, so dense that they can only be crushed with a hammer, and so offensive that they can scarcely be worked with are found in large numbers.

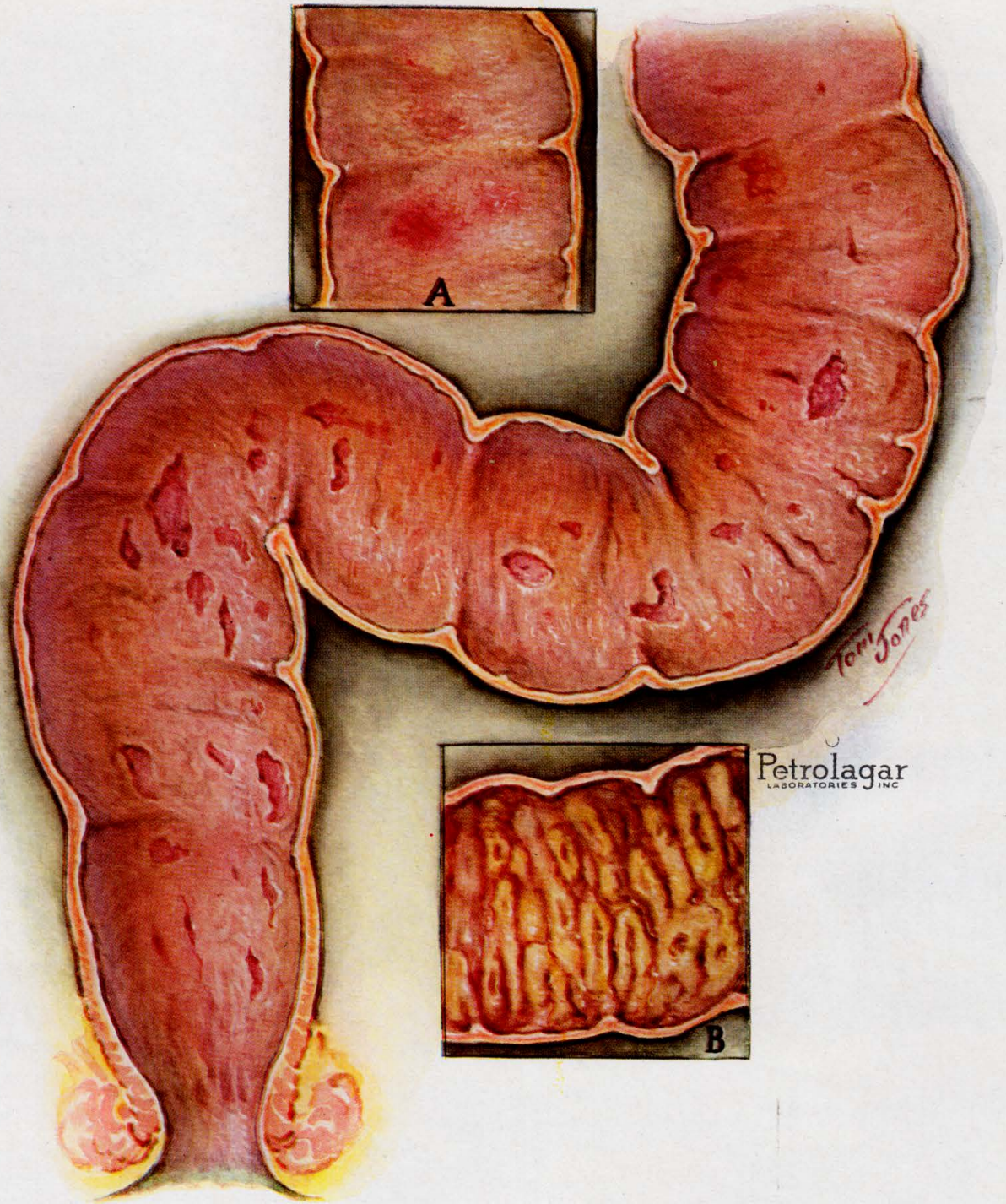
Of course all the patients do not have all of these symptoms of intestinal incompetency, but in every instance where several of these are found their subsidence marks the subsidence of many of the general and mental symptoms.

Constipation

One of the common sources of error in treating patients of this kind is to ask them or their attendants whether their bowels are moving daily, and then to be satisfied when they answer in the affirmative. The normal stool varies from 60 to 250 Grams in weight, and from 1 to 4 evacuations daily to 4 to 7 in a week. This amount can be varied readily and in no sense of the word can it be used to base serious conclusions upon.

Consequently, the mere fact that the bowels have moved ought not to be sufficient evidence that autointoxication does not exist. Some time ago we investigated carefully the subject of the amount of the stool in mental cases and found that, although a patient under observation was having a daily evacuation, he still had a very marked impaction of the colon.

Anatomically, the colon is built like a series of balloons opening into one another. It is not a straight tube with straight sides. There are numerous pockets all along it in



Lower Bowel in Advanced Colitis

a — Appearance of mucosa in early stage of colitis.

b — Ulcerative colitis.

which fecal material may collect. The hepatic, splenic and sigmoid flexures may likewise expand so as to hold excessive quantities of old excrement. Besides, in many mental cases with relaxed abdominal walls the transverse colon has made a deep loop which is filled with hard fecal material. Bit by bit all these cavities are filled until the patient is holding a large quantity of fecal material from which he is absorbing deleterious substances into his body, yet at the same time is having an evacuation from the bowels every day.

The main hall is open but the adjoining rooms are polluted. A teaspoonful of material retained daily will soon fill all the colonic cavities, and the shrewdest observer of the excreted stool will not be able to detect the loss of a teaspoonful from the usual amount.

Again, the fecal material may collect along the sides of the colon much as lime scale collects on a water-pipe, leaving an open but ever-decreasing channel in the middle. After days of active purgation I have washed away from demented patients material curved in shape, hard and covered with blood, pus and mucus on the convex side, everything showing that the material had not only collected on the colon-wall but that it had eroded and ulcerated the mucous membrane as well. In other cases the rectum itself may be the offending member.

Just above the lower sphincter is a space which normally feels very small, a little larger than the index finger. In many cases of impaction this enlarges to the size of a fist or more, and a large mass of hard fecal material will collect in such a fashion as to act as a ball in a ball-and-socket valve.

Each day the ball will rise slightly, allowing a small amount of material to come through but not permitting the rectum or sigmoid or colon to clear itself. I had suspected this condition for some time, but only recently was able to demonstrate it beyond a doubt.

A maniacal woman seized a large diamond ring from her sister-in-law and before she could be stopped swallowed it.

It being inadvisable to give the patient an emetic, the stools were ordered watched and the patient allowed to go

on as before. A few days after the occurrence she returned to her home for a visit, joined in the Christmas festivities and returned to the sanatorium for treatment. During her absence she had had a stool every day and seemed to be in as good condition as usual. Eight days after the ring was swallowed a radiogram of the abdomen was taken soon after noon. The negative showed a doubtful shadow low down in the pelvis.

The two following mornings the patient had evacuations as usual, 36 hours after the first negative was taken a second one was made. This also showed a shadow low down in the pelvis. I then inserted my finger into the patient's rectum and found it greatly dilated and occupied by a round solid mass nearly as large as a base ball.

This I crushed with some difficulty and found the ring in its center. Now, this patient had traveled nearly 600 miles by train, had had a bowel movement every day, and for two days that we know of positively this ring lay within two inches of the rectal outlet and did not pass out in two fairly good-sized movements which the patient had bad.

This hard faecal ball, forming a perfect valve, only lets a small portion of the faecal material pass out.

Other Treatments May Be Needed

These patients were Cured by cleaning out the bowel alone (all needed other treatment, massage, baths, and the like), none were ever cured unless this was done, and several relapsed because they failed to follow instructions regarding these matters after they left the institution.

It would take too long to detail all the facts that experience has taught in regard to colonic constipation.

Suffice it to say that the doctor who attempts to treat the mentally diseased, without arranging thoroughly and continuously to evacuate the bowel, will not succeed. This brings us to the best method of accomplishing the result desired. Since, as we have said, the colon is mostly at fault in these cases, our measures must be directed to that organ.

Many persons have fallen into the habit of self-

medication. They know nothing about drugs but consider them all alike and take anything which their druggist offers them. Then, too, a number of doctors pass out to their patients anything in the way of a laxative that is handy, never stopping to consider whether it is indicated or not.

With us, the best results are obtained by a mixture of 4 forces:

1) Enemas
2) Abdominal massage
3) Physical culture exercises
4) Electricity

(Note on Diet: obviously a wholesome healthy diet is the ideal diet)

Diet cannot be depended upon, because most of the mentally deranged will not eat regularly, masticate properly or partake of any definite set of dishes.

Value of Enema

In all our cases enemas take the first place. More than once we have turned a maniac into a quiet subject by merely emptying the lower bowel with water. Although myself and my assistants have given several thousand of these treatments, we have never had any bad results nor has a single patient, no matter how violent, been injured.

Nearly always two quarts of water are used at one sitting. If the faecal material is badly collected, the attendant introduces two fingers into the rectum and while the water is running gently crushes the harder and larger particles and washes them out. Another attendant then kneads the abdomen and gradually works the colon empty.

This is repeated daily until the movements are coming away soft and of good colour and odour. If the material that comes away is very bloody, olive oil impregnated with aqueous calendula is allowed to remain in the colon after it has been flushed out.

Massage

The abdominal massage is carried on by a skilled operator and is given so as to empty the colon and strengthen the abdominal muscles. The chief aim of the physical culture is to strengthen the abdominal muscles.

It usually cannot be employed until late, as the majority of mental patients will not go through the movements properly while disturbed.

We use a set of 15 exercises: 5 lying down, 5 sitting up, and 5 standing. They are all given in the presence of the instructor and are added to as she deems best.

Electricity

Both sinusoidal and faradic electricity are used over the abdomen at regular intervals. Most of the patients object at first, but if made to undergo it a few times, they usually acquiesce and take treatment quietly. Other measures are used to treat the case generally. The ones here outlined are for the intestinal difficulty solely.

Conclusion

After the patients have regained their normal mental balance and have returned to their homes, and they are cautioned about not permitting themselves to become constipated again, for we believe that:

1. All persons who are mentally de ranged are aggravated by intestinal auto intoxication.

2. Sooner or later nearly all mentally de ranged patients show a set of symptoms which speak for autointoxication.

3. One must not believe that because the patient is having a daily stool he is not suffering from intestinal autointoxication.

4. The best method for overcoming the autointoxication is to unpack the rectum and colon by repeated copious enemas followed by abdominal massage, physical culture movements, and electricity.

5. Lastly, that mental diseases could, to a large extent, be averted by carefully keeping the bowels open at all times so as to stop intestinal autointoxication." - Dr Carl W. Sawyer, BS, MD, Marion, Ohio, Neurologist of the C. E. Sawyer Sanitarium, in The American Journal of Clinical Medicine, Vol.18, 1911.

"In all cases of mind disease, we should look well to intestinal autointoxication. I see from Dr. Carl W. Sawyer, of Marion, Ohio, some excellent ideas I have seen tried with excellent results. He speaks particularly of impacted colon.

Every mental patient should undergo a thorough abdominal examination.

A sickening sweet breath, more offensive than the bromide breath, nor with the tonsil and foul mouth breath; it is more like the acetone breath, only sweeter. He says again, we have been surprised at the tremendous amount of indican our mental patients pour out in their urine.

The doctor's experience in other conditions are like my own in these respects. This colonic constipation must be relieved. High enemas is the only way to success in these cases. As the colon is mostly at fault our measures must be directed to that organ, as the maniac can be made to become quiet by emptying the lower bowel with water.

Retain the injections for quite a while, at the same time massage the bowels thoroughly along the colon. Use this daily until the bowels are thoroughly cleaned out." - Dr R.R. Hopkins, MD in "The Medical Summary" Vol. 34, 1913.

Chapter 16

Colon Irrigation in the Treatment of Mental Disease

"The purpose of this article is to present a report of the result of the treatment of mental disease by the use of Colon Irrigation at the Gardner State Colony. The evacuation time of the colon in 3 groups of mental cases lie reports his results as follows:

1. Dementia praecox 113 hours;
2. Manic depressive psychosis 154 hours;
3. Psychoneurosis 80 hours.

After treating patients in each of these groups by Colon Irrigation:

Dementia Praecox Cases 17% Recovered;
Depressive Psychosis Cases 70% Recovered;
Psychoneurosis Cases 80% Recovered.

Of the total cases, all groups, 40% Recovered, 33% Improved, and 57% were Released on Visit. Approximately 200 Colon Irrigations are being administered monthly at the Gardner State Colony. No untoward results have been noted in any case. It is unnecessary to employ elaborate apparatus or elaborate solutions.

Good results can be obtained with weak solutions of sodium bicarbonate, one-half normal saline solution and weak solutions of tincture of green soap. The quantity of fluid used during an irrigation will vary from 38 Litres to 76 Litres warmed to a temperature not to exceed 43C.

Summary

Colon Irrigation aids in combating a number of abnormal conditions. By cleaning out the colon the system is afforded relief from toxic products and an unnecessary burden is removed from metabolic processes; by its mechanical cleansing action cleanliness in habits is promoted; by the absorption of fluid from the colon, which takes place during treatments, dehydration is relieved. From our experience this treatment produces a quicker return to mental stability in our opinion in favourable eases.

In active cases sedation is unquestionably obtained, strikingly shown by a reduction in the number of wet sheet envelopments required, which prior to this form of treatment numbered from anywhere up to nearly 500 monthly. Since the use of colon irrigation, wet sheet envelopments have fallen to less than 60 monthly and sometimes none at all. From the standpoint of the hospital, it is interesting to note that the destruction of mattresses, sheets and clothing has fallen off approximately 50%. Our results may be given as follows:

From June 1930 to 1 May 1932 we have given 5,468 colon irrigations averaging 44 minutes each to 191 different patients. This represents between ¼ and 1/5 of our population which in round numbers is 1350.

Results

Home	23.5%
Improved	
Physically	19.9%
Mentally	13.6%
Unimproved	
Physically	11.8%
Mentally	17.0%

Intercurrent Diseases

Contraindicating	8.4%
Insufficient Treatment	5.7%

- Dr Harold K. Marshall, MD, Assistant Physician, Gardner State Colony, Department of Mental Diseases, and Dr Charles E. Thompson, MD, Superintendent, Gardner State Colony, in "New England Journal of Medicine", 8 Sept. 1932.

The Commonwealth of Massachusetts, Department of Mental Health, Public Document N.30, Annual Reports of the Trustees of the Westborough State Hospital

1931 to 1935

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"New apparatus has been provided as needed including 2 complete modern outfits for Colonic Irrigation, and added facilities for Hydrotherapy." - in "Annual Report of the Trustees of the Westborough State Hospital", 1931.

"Hydrotherapy facilities have been extended, and in the form of continuous bath treatment, neutral pack and Colonic Irrigation constitute one of the most valuable methods of treatment of mental cases." - in "Annual Report of the Trustees of the Westborough State Hospital", 1932.

"Our Hydro-Therapeutic facilities have been increased and are used to the fullest extent principally in the forms of continuous bath treatment, neutral packs and Colonic Irrigations, these measures having been found through long

experience to be the most valuable in the treatment of mental cases." - in "Annual Report Westborough State Hospital", 1933.

"A Ward Building for the accommodation of 204 women patients of the disturbed type.

As planned this building would be sound-proofed and air-conditioned and would contain ample facilities in the way of continuous baths, pack units, Colonic Irrigation and other types of treatment useful for this class of patients." - in "Annual Report Westborough State Hospital", 1934.

Chapter 17

Treatment of Chronic Arthritis

"Erbstein (Munchener medizinische Wochenschrift, 23 Nov. 1911; quoted by Turck, "Diseases Produced by the Bacillus coli communis in the Intestines", International Clinics, II, Series 21) finds that pains in the joints and nerves are frequently of intestinal origin, whether there is coprostasis or diarrhoea, and by using oil enemas the pains disappear. In a recent paper "The Relation of Intestinal Toxemia to Chronic Arthritis; Treatment, New York Medical Journal, 24 Feb. 1912", I reported a case of chronic arthritis in which the pains in the joints were relieved for about 18 hours after each Colonic Irrigation. Marshall ("Arthritis of Gastrointestinal Origin, Its Diagnosis and Treatment", JAMA, 26 Nov. 1910) also reports a case of colostomy for rectal ulceration, in which the patient could tell when washings were needed by the pains that began in his joints. They always subsided with the washings." - Dr Charles Clyde Sutter, MD in "New York Medical Journal", 28 Sept., 1912.

"Emphasizing the frequent multiplicity of causes in the production of arthritis, Snyder believes that in refractory cases, after exhausting treatment of determined foci of infection, or failing to discover any foci, the poor therapeutic results are probably due to existence of infective foci or to toxic absorption in the genito-urinary and intestinal tracts. He has empirically

used in the past 4 years, wherever clinically indicated, a system of treatment aiming at elimination and correction of intestinal stasis. Since doing so, his clinical results have shown a definite improvement. He does not feel that the colon is a factor in all cases, no doubt in many cases it has no relation to the onset. A minimum course of 20 to 30 irrigations is insisted on; from 2 to 4 gallons each time; fresh cultures of B. acidophilus are injected into the colon after each irrigation. "The improved clinical results, it would seem, should be attributed to the system of irrigations as a whole." - Dr R. G. Snyder, MD and Dr S. Fineman, MD ,in "A Clinical and Roentgenologic Study of High Colonic Irrigations as Used in the Therapy of Subacute and Chronic Arthritis", American Journal of Roentgenol, XVII, 27 Jan. 1927.

"Exacerbations of the joint symptoms often follow definitely recognized increase of digestive or gastrointestinal disturbances. Some patients have had periodical attacks of toxemia with nausea, vomiting, general depression, loss of appetite, coated tongue, and indican in the urine. Calomel (cathartic) in these cases removes the symptoms of toxemia and at the same time the joint symptoms are improved.

Many patients with arthritis are completely relieved by preventing the absorption of substances from the large intestine by purging, colonic irrigation, and regulation of the diet. We must not overlook the fact also that intestinal toxemia often occurs secondary to arthritis.

The toxemia which in one case may be the cause of arthritis, in another case may manifest itself in arteriosclerosis, Bright's disease, cirrhosis of the liver, catarrhal otitis media (Sargent F. Snow in "Prevention of Catarrhal States that Lead to Deafness, with Special Reference to Autointoxication", 16th International Medical Congress, Otological Section, Budapest, September, 1909),

vascular and functional disturbances of the eye (Hiram Woods in "Autointoxication and Allied Intestinal Troubles as a Possible Cause of Certain Vascular and Functional Disturbances of the Eye", JAMA, lv, p. 539-561, 13 August 1910), skin lesions, such as eczema, urticaria, acne, erythema, pemphigus, impetigo, etc.; functional disorder of the heart and vasomotor system and neurasthenia (Swan and Sutter in "The Organic Basis of Neurasthenia", New York Medical Journal, 21 January 1911, and, William Browning in "Is There Such a Disease as Neurasthenia? A Discussion and Classification of the Many Conditions that Appear to Be Grouped under That Head", New York State Journal of Medicine, January 1911), Obstinate Headache, Epileptoid Attacks, etc.

Faecal Retention

Marshall (Arthritis of Gastrointestinal Origin, Its Diagnosis and Treatment, JAMA, Iv, pp. 1871-1877, 26 Nov. 1910) reports a case of Arthritis and Psoriasis in a man who had no digestive symptoms except occasional slight abdominal pains at night. Colonic Irrigations were given and at the end of 8 days an enormous accumulation of faecal material was expelled. This resulted in complete recovery from the arthritis and the skin lesions.

Colonic Irrigations

Colonic Irrigations are used to a great advantage in these cases by removing irritating particles in the state of decomposition and at the same time giving daily evacuations. By means of physiological salt solutions, the large intestine may be washed free of its contents.

This procedure has now been frequently practised with extremely beneficial results in the direction of diminishing excessive intestinal putrefaction. Herter says he has known it in several instances to be followed by a reduction in the output of ethereal sulphates and in the excretion of indican by the urine. It also gives relief from headache, mental

depression, irritability, flatulence, and the joint pains which are common in these cases. If the lavage be practised cautiously with respect to the avoidance of an excessive volume of fluid, the method may be applied for a considerable period of time without discernible harmful effects. It is perhaps better to employ irrigation 2 or 3 times a week than to use it daily.

Where excessive quantities of fluid are used, distention of the colon occurs and may be followed by troublesome atony. Great discomfort may also be caused and the patient may rebel against the treatment." - Dr Charles Clyde Sutter, MD in "Relation of Intestinal Toxemia to Chronic Arthritis, Treatment", New York Medical Journal, 24 Feb. 1912.

The Colon in Relation to Chronic Arthritis

"The role of the gatrointestinal tracts and its appendages, the appendix and gall bladder, have long beet considered etiological factors in the causation of chronic arthritis. The removal of an infected gall bladder or an appendix has demonstrated to every surgeon and internist that these organs may cause arthritis and an infection even more insidious and damaging than tonsils, teeth, sinuses, etc.

The colon itself has been removed and, in some instances, given astonishing temporary relief from a severe arthritis. A review of 324 adult private patients treated for infectious arthritis showed 80 cases, who, on careful gastroenterological study, revealed definite abdominal pathology. This survey is based upon an analysis of 80 patients, free of any source of infection aside from the gastrointestinal tract. The large intestine is doubtlessly the most common part of the gastrointestinal tract to cause arthritis.

Etiology

Abnormalities have been found in the colon which may contribute etiological factors to a Chronic Arthritis, viz:

1. Chronic Constipation: was present in 97.5% of these patients, 2 patients had moderate diarrhoea associated with a severe colitis. In most instances the constipation was symptomatic, but in a few it consisted of the delayed bowel movement type. The term "delayed bowel movement type" of constipation has been applied to patients having daily bowel evacuations, but stools which were 2 to 4 days delayed. All of these patients showed marked stagnation in the cecum and ascending colon.

2. Chronic or Subacute Colitis: was observed in 61 of the patients.

It would seem that in a patient who had had all other foci of infection removed with no joint improvement, a correction of a colonic condition with joint healing would indicate that the intestinal factor was etiological.

The Treatment of Arthritis

The disease of the joints is a chronic condition, which requires months and not weeks to cure. The diet is an important factor in correcting the chronic constipation and the accompanying intoxication.

Large quantities of vegetables and fruit are essential in increasing the rapidity of the bowel elimination. The caloric content of the diet should be sufficient to maintain or increase the body weight as needed. Thorough bowel irrigation has been of inestimable value in relieving a number of cases who were not influenced by the dietetic and laxative measures. Many other cases could be cited with equally striking and almost miraculous results. These, however, are sufficient to illustrate that:

1. Proper intestinal elimination succeeded in relieving the arthritis.
2. Relaxation of intestinal hygiene caused a return of the arthritis which was again relieved when the proper elimination was re-established."

- Dr Ernest Clyde Fishbaugh, MD, FACP, Read at the 32nd Annual Meeting, American Gastro-Enterological Association, Atlantic City, 6-7 May 1929, "American Journal of Surgery", October 1929.

The Large Bowel in Chronic Arthritis

"A. A. Fletcher and D. Graham (Am. J. M. Sc. 179:91, 1930) made a roentgen examination of the large bowel in 60 patients with chronic arthritis. In 65% of these patients they observed changes that they considered abnormal. There were changes in tone, haustral markings and length. Atony was sometimes seen in the whole colon, though usually in the caecum where it might be extreme. These abnormalities were markedly improved by dietetic treatment with coincident improvement in the arthritis.

The Colon as a Focus of Infection in Chronic Arthritis

E. C. Fishbaugh (Am. J. Surg. 7:561, 1929) emphasized the importance of eliminating the colon as a focus of infection in the patient with chronic arthritis. He had followed a series of 60 female and 14 male patients, in whom, after all other foci had been eliminated, the colon was found to be the disturbing factor.

The various etiologic factors were chronic constipation, chronic or subacute colitis, bands or adhesions, diverticula, rectal cyst or haemorrhoids. Roentgen examination of the colon for 4 or more successive days was of great aid in determining the diagnosis of sluggish colon. Treatment consisted of a bulky diet, mild laxatives, and irrigations with a cecal tube. After Irrigations an active culture of acidophilus was left in the caecum - 8 cases were not followed.

The remaining 72:
- Quiescent 42
- Showed Improvement 22
- No improvement 8

- in "Archives of Surgery", Sept. 1930.

Clinical Cases

"Case 1 - 4 years old child undernourished, painful swellings about the wrist, hands, knees and feet which had been present for 5 of the 6 months. Treatment directed only toward the colon was instituted. This consisted of repeated Colonic Flushings. The child is now 7 years of age and has completely recovered.

Case 3 - Acute Rheumatic Fever. The heart began to show irregularity and on occasion a murmur. The gastro-intestinal tract was investigated. Numerous diverticula were found. His daughter, being a nurse, was instructed to give him repeated Colonic Irrigations and Intestinal Antiseptics were administered both by enema and by mouth. Within 10 days after this regime was started the temperature had returned to normal and the joint pain and swellings had entirely subsided.

Case 4 - This case is quite similar to cases 1 and 2. This man had such a Severe Arthritis that he had been continuously bedridden, for 7 years with severely swollen joints, and every breath was agony. Treatment of the colon was resorted to with definite improvement of the Arthritic Condition." - Dr Elliott M. Hendricks, MD in "Southern Medical Journal", 1941.

Chronic Arthritis Hydropathy, Colonic Lavage

"In addition to the procedures previously considered whereby the defensive mechanism of the body may be stimulated and its natural curative forces marshaled against chronic arthritis and fibrositis there are a number of physical methods that are of great value in producing similar effects. These special measures are commonly referred to by the designation of physiotherapy, and the application of heat is one of the important objectives. Fortescue Fox has written:

> *"Rheumatic exudations are smouldering foci of disease, and heat, properly used, often effects their resorption. The dosage of heat is, however, most important."*

It is generally recognized that heat and other "insults" to the skin increase the defensive powers of the body and that these effects are produced both directly and indirectly. The importance of the skin capillaries and the large amount of blood that they can hold when in a state of dilatation has already been referred to. Hydrotherapy in the sense of the administration of natural mineral waters internally was mentioned under the section dealing with drugs and the term will be used here with reference to the use of water of any kind externally. Technically, this method of treatment is called "balneotherapy." The development of spas in England and on the Continent is centuries old and in the United States there are a number of thermal establishments which have gained a high, degree of popularity for a variety of diseases including chronic arthritis and fibrositis.

The use of water externally is one of the most ancient of the arts of medicine and is even mentioned in the Bible:

> *"Go and wash in Jordan seven times, and thy flesh shall come again to thee, and thou shalt be clean" - II Kings, 5:10*

Since the recent epidemics of infantile paralysis in this country its employment has been extended widely for the support that water gives in connection with exercising paralyzed and wasted limbs. However, it is only with relation to chronic arthritis and fibrositis that hydrotherapy will be considered here. Hot baths have both a local and a general effect or reaction. Locally, the blood supply to the immersed part is increased and, while this is also a result of the general application of water, it is greatly accentuated when only a small area of the body is treated, since the temperature that may be readily borne is much higher. From the point of view of a general effect, or reaction, both the skin and body temperatures are increased and the processes of metabolism are stimulated.

In the experience of the author the number of patients who respond favourably to hydrotherapy is relatively small when compared with the results of sun-bathing, and it is his belief that if sunlight were more abundant in those countries in which hydrotherapy has attained its highest development, heliotherapy would generally be the method of choice. However, there are cases in which balneotherapy seems to best provide the necessary stimulation and those other effects which promote recovery. The use of hot water to increase elimination through the skin and the kidney is well established. Fain may also be relieved by hydrotherapy and the restoration of function in joints and muscles greatly facilitated by the support given by the water and the consequent lessening of muscle spasm.

When evidences of acute inflammatory changes are present, hydrotherapy is rarely useful and it must never be considered as a substitute for the removal or drainage of demonstrable foci of infection. The brief stimulating action of hot baths is rapidly followed by a depressant effect which lasts much longer and is most marked when the temperature of the water is as much above the skin temperature as can be tolerated. Patients with lowered vitality, or weak heart action react badly to hot baths and those with the infectious type of the disease rarely receive

much permanent benefit from complete immersion except when it is employed as an adjunct to the correction of deformity and the restoration of function. Needle sprays, which enable the operator to use hot and cold water alternately are preferred by the writer, who also always has hydrotherapeutic measures followed by massage. In properly selected cases, balneotherapy is exceedingly valuable and no clinic may be considered complete without facilities for this form of treatment.

Colonic lavage, which is a special form of hydrotherapy is most useful and should occupy a more important place in the treatment of chronic arthritis and fibrositis than is the case at the present time. The frequency with which intestinal infections may be found to exist is noteworthy, particularly in elderly women.

The attention of the medical profession and the laity has so long been focussed upon the teeth, tonsils, sinuses, etc., that the recognition of the intestine as a source of infection has only recently come into prominence. Every worker in the field of chronic arthritis has seen patients who did not improve following the removal of infected teeth or tonsils, and in whom the existence of some probable hidden infection barred the way to recovery. Intestinal infection is by no means of rare occurrence and, as may be readily understood, is usually secondary to foci in the mouth.

The colon is the part of the bowel most commonly implicated and the treatment should be directed toward correcting the stasis and "colonic stagnation." It is still the custom in the United States to use large volumes of saline and other solutions in these "washings". This exceedingly valuable hydrological measure, when combined with diet and other forms of physiotherapy, often produces results that come with startling rapidity and improvement takes place in an unbelievably short period of time.

The technique used abroad is to be preferred to the procedure generally practised in this country and is a most effective means of combating colonic toxemia. Instead of introducing a volume of fluid that is measured in quarts and gallons, the Plombiere method entails the administration of

two douches of relatively small amounts. The first douche consists of one and a half pints of water or other solution and is given at a temperature of 38°C. and under a pressure of about twelve inches of water.

The patient is allowed about a quarter of an hour in which to empty the bowel, thus giving the second douche a chance to act upon the lining of the intestine.

The second administration is given in amounts varying between two and two and a half pints at the same temperature as the first, but under a pressure of 18 inches.

After the colonic toxemia has been relieved, the Plombiere douches may be followed by the introduction directly into the colon, of either acidophilus or bulgaricus bacilli." - Dr Bernard Langdon Wyatt, MD, FACP, Director of The Wyatt Clinic; Member Editorial Staff of "Acta Rheumatologica'' of the International League Against Rheumatism, in "Chronic Arthritis and Rheumatoid Affections", 1931.

> *"The problem is not merely that of promoting intestinal activity in the immediate present, but to employ such measures as will tend to improve if not actually to cure the chronic constipation for the future. We have, therefore, to revitalise the mucous membrane, and, so far as may be possible, restore the activity of its glands; we have to tone up the intestinal muscles and restore their energy, and, similarly, we have to restore the energy of the muscular wall of the abdomen." - Dr J. D. Hindley-Smith, MA, MRCS, LRCP in "Chronic Streptococcal Toxaemia and Rheumatism", 1935.*

Chronic Arthritis and Fibrositis

Colonic Therapy
General Principles and Indications

"Colonic Irrigations are exceedingly valuable hydrological measures, and should occupy a much more important place in the treatment of the arthritides for the reasons set forth in connection with their etiology. Like analgesics, Colonic Irrigations have seemed to suffer either from neglect or abuse, with the result that it has been very difficult for the physician to "steer a middle course" and give his patients the benefits to be derived from a form of therapy that is most effective when employed in carefully selected cases, whit proper equipment and in accordance with sound principles of technic.

Let it be clearly understood in the beginning that Colonic Therapy is merely one factor of a composite program of treatment. Just as the removal of infective foci initiates but does not constitute treatment, so must Colonic Irrigations be associated with other therapeutic measures. For example, diet must receive attention and all of the potentialities of an anatomical, physiological, etiological and pathological character must be considered.

Quite apart from the relatively infrequent cases of secondary intestinal foci with departures from normal in the flora there are many arthritic patients who derive great benefit from Colonic Irrigations. Among such may be mentioned those with ptosed, spastic or atonic colons, mucous or ulcerative colitis, kinks, twists, diverticula and adhesions. It should not be construed that Colonic Therapy is indicated for all such patients; but experience has demonstrated that many of them who present manifestations of toxaemia and whose arthritis has resisted other treatment methods, respond rapidly to a therapeutic combination in which Colonic Irrigations play an important role." - Dr Bernard Langdon Wyatt, MD, FACP in "Chronic Arthritis and Fibrositis", 1933.

Pemberton in the Treatment of Arthritis

"Makes clear that he uses colonic irrigation in conjunction with colonic massage in some of his cases of arthritis. (In an outline of the chief therapeutic measures utilized in the achievement of results in 200 cases of arthritis, atrophic, hypertrophic and mixed types, colonic massage and irrigation were given in 40 cases).

Pemberton stated that:

"One of the most graphic evidences of the value of colonic irrigation is sometimes to be seen in the sudden and sporadic evacuation of a considerable amount of particularly evil-smelling and looking material, in some cases days or even weeks after irrigations have been instituted.

This suggests very strongly that a pocket of some kind may have existed which does not empty easily or that a small loop o f colon may remain filled an undue length of time.

It is the experience of many observers in a number of conditions, including arthritis, that efforts directed at reducing the degree of retention of the contents of the colon may have beneficial consequences.

The means to this end may be the ordinary laxatives, though these are not altogether satisfactory an d involve certain undesirable effects; or they may be in the nature of irrigation per rectum with various kinds of solutions.

There is apparently sufficient clinical data for one to state that Colonic Irrigations are of value in the treatment of Arthritis." - Dr Frank H. Krusen, MD, in "Handbook of Physical Medicine", American Medical Association, 1945.

As Pemberton expressed it:

"In any event, it is thoroughly determined t hat in a certain proportion of arthritics, processes nature operate unfavourably within the intestinal canal and particularly the

colon. It is reasonably certain that a variety of factors contributes to the intestinal origin of arthritis.

It is possible that the use of copious amounts of fluid to wash out retained faecal material above the defecation area of the large bowel is occasionally indicated.

It may at times be advisable to treat constipation in this manner in the hope of removing retained faecal material." - Dr Ralph Pemberton, MD in "Arthritis and Rheumatoid Conditions; Their Nature and Treatment", 1935.

Chapter 18

Colonic Irrigation in the Treatment of Rheumatism

"The bowel has been known to be a potential source of sepsis in cases of rheumatism for many years, although insufficient treatment has been directed into this channel by general practitioners. It must not be thought, as it is by some, that a pint of soap-suds in the rectum once a week constitutes the alpha and omega of colonic therapy, however, or is indeed by itself a very helpful measure at any time!

There can be no doubt that many cases derive very great benefit from a course of colonic treatment properly and systematically applied; equally manifest, however, is the fact that in most cases other treatment must be given concurrently to get the best results. The general indications may be taken to be dyspepsia with rectal flatulence, some degree of constipation such as is shown by an occasional irregularity of the bowels, hard dry motions, or an unusual offensiveness of the excreta, a "muddy" unhealthy appearance of the skin, and an accumulation of upper abdominal fat. Improvement is more rarely noticed in thin than in fat patients.

Reference has so far been made to "Colonic Therapy" rather than "Colonic Lavage," since therapeutic methods of use in this situation are not limited to irrigation.

Colonic Therapy may comprise the following procedures:

1. Purgative measures.
2. Colonic irrigation with various solutions.
3. Changing the flora of the lower bowel.

In rheumatism, and particularly arthritis, abnormalities of

the gastro-intestinal tract are common, and so far as these are observed to affect the colon may be due in part to anatomical abnormalities or "kinks" in this part of the intestine.

This fact was first noticed by Lane who, as is well known, went so far as to advocate the removal of the colon in obstinate cases of arthritis. The colon is the storehouse for food and debris which has passed through the intestinal canal.

Fluids are also absorbed to a large extent from this portion of the gut.

In the circumstances a local condition of microbic sterility is unthinkable, would in all probability be actually harmful if achieved, and is not the aim of colonic therapy.

What may, however, with justice be aimed at locally is:

a) Diminution of local stasis or atony;
b) Healing of local colitis, due to or aggravated by stasis;
c) Consequent lessening of the amount of toxic absorption which can take place at this site;
d) An alteration of the predominating infection, which in itself is sometimes helpful from the clinical aspect;
e) Re-education of the musculature of an atonic bowel.

Colonic Irrigation

It is asserted that two main types of bacterial action exist in the colon: the putrefactive type which thrives upon a large meat and protein diet, and the fermentative type which thrives best upon a carbohydrate diet. In conjunction with the sluggish colon which tends to exist in a large proportion of arthritics the bacterial flora generally tend to the putrefactive type. This may be altered dietetically, and with the help of colonic lavage, often causing improvement in the clinical condition of the patient. Irrigation of the colon may be given with various solutions, and in my experience the exact formula is not extremely important; a weak alkaline solution is preferred.

The St. Mary's Hospital formula for this is as follows:

Common salt, 1 drachm; bicarbonate of soda, 1 drachm; water to 500ml.

A preliminary procedure which enhances the value of colonic lavage is colonic massage, which, may subsequently be practised by the patient himself quite easily as follows: He should be recumbent. Knead firmly and progressively from a point in the left lower quadrant of the abdomen towards the rectum.

Then select another point a few inches farther up the descending colon and repeat the process towards the rectum. Repeat this process eight to twelve times until massage be ultimately started at the caecum and carried round to the rectum. This colonic massage should be performed thoroughly about 20 minutes prior to colonic lavage on each occasion.

Changing the Flora of the Lower Bowel

It is largely as the result of the work of Dr Kellog, MD of Battle Creek that we know of the possibility and the desirability of changing the microbial flora of the lower bowel in those cases of rheumatism or arthritis in which this area is suspect as a focus of infection.

The process is not so easy as certain vendors of the B. Acidophilus in pocket tablets would have us to believe.

It requires a considerable amount of time, co-operation on the part of the patient and attention to dietetic details, for very few such substances given orally are effective at the rectum. In mild cases it is probably not worth the trouble involved, unless the patient is keen to try anything which might prove helpful.

The mere ingestion of small quantities of this bacillus once or twice daily without other procedures has never in my experience, made any difference, which could be detected bacteriologically, to the composition of cultures

taken from the stools before and after such ingestion.

The object of effecting a change in the intestinal flora is as follows: As has been stated previously, in many rheumatic patients a great preponderance of streptococci and other putrefactive organisms are to be found. Sterility of the lower bowel is not possible; the only alternative to this state of affairs is therefore to substitute for the putrefactive type, other organisms which will find the environment congenial.

The B. Acidophilus, a fermentative bacillus, is said to be present in large numbers in the bowel of the infant, and that if a diet very rich in the carbohydrates, dextrin and lactose be given by mouth and this bacillus be introduced into the colon, that it will "take root," and whilst it flourishes, the streptococcus and other putrefactive organisms cannot regain their foothold.

The B. Acidophilus is therefore a convenient organism to use for this purpose, although it is not the only one available. If the B. Bulgaricus is more readily obtainable, this may be substituted." - Dr W. S. C. Copeman, MA, MB, B.Ch., MRCP, Hon. Physician, British Red Cross Society's Clinic for Rheumatism, London, in "The Treatment of Rheumatism in General Practice", 1939.

Treatment of Rheumatoid Arthritis

"The thermal treatment of the affected joints, either by means of baths, super heated air, or electric light baths, is most beneficial.

Douche massage is the most effective form of treatment with hot water, and perhaps next to that rank peat baths and brine baths. Properly regulated movements and massage are helpful to overcome stiffening of joints and the muscular wasting.

The Bier method of hyperemia is often of great use when the joints affected are few in number. It can be employed even when the joints are acutely inflamed and often gives great relief from pain. Where the joints have become more or less fixed owing to fibroid thickenings, fibrolysin is of value,

and if this is followed by massage of the affected parts the thickened tissues stretch and undergo absorption. In those cases of arthritis secondary to a chronic colitis, irrigation of the colon by the Plombieres method will be found very effective." - A. P. Lull in "Practitioner", January 1912.

The Use of the Plombieres Douche

"By the employment of this method on an extended series of cases in which there were abdominal symptoms I have been convinced of its great value, as a means both of diagnosis and of treatment.

The particular method adopted is one which can be carried out as follows:

A preliminary soap-and-water enema is given in order to obtain a complete evacuation of the colon. This is an essential feature and if adequate evacuation is not obtained the enema may have to be repeated, with or without the addition of turpentine or glycerine.

The result of the enema is carefully noted and then the douche, warmed to the body temperature, is administered.

This consists of a 7% saline solution to which may be added any antiseptic or drug which it is desired to apply to the surface of the colon. It is given by a rubber catheter. The catheter need not be inserted more than 2 or 3 in. The patient first lies on his left side, and the saline is slowly poured in. After 2 minutes the position of the patient is changed and he lies on his back: and after another interval of 2 minutes he lies on his right side; this change of position facilitates the flow of saline along the different parts of the colon.

The nurse is instructed to report any symptoms of pain or discomfort complained of by the patient and whether there is any stoppage to an even flow. For the first douche I usually direct that not more than 500ml should be injected; subsequent douches may be increased up to 1 litre. The douche of saline is usually quickly returned and in the first

part, mucus, pus or flakes of mucous membrane (uncoloured, or coloured by faeces) and sometimes concretions, appear.

The presence of mucus or mucous membrane indicates surface abnormality, and any such discharge should be saved for naked eye and microscopical inspection.

Very valuable information may be obtained occasionally by a careful microscopic examination of the product both unstained and stained, and, whenever possible, it should be sent for such examination. Parasites, pathogenic amoebae and bacteria, are found here less contaminated by other faecal bacteria, and the well-washed flakes of mucus form the only practical means of obtaining from the colon cultures likely to be uncontaminated.

The Method is as Valuable for Diagnosis as for Treatment, and it is in its routine application in clinical examination that its results have been so valuable. The presence of mucus or membrane in the returned saline indicates catarrh or necrosis in the mucous membrane or a portion of it, and a painful spot may enable such abnormality to be accurately located.

A careful inquiry about the patient's symptoms after the douche is important. Sometimes there is a sense of comfort, in which case we may presume that the lavage has done good; in other cases the patients complain of more discomfort, and when it may be that some inflamed area has been stirred up. The source of the catarrh is not necessarily in the bowel itself: it may be in the peritoneum or in some neighbouring organ.

As a Therapeutic Measure I have used it in the following conditions:

1. Colitis of all types especially that following appendicitis.
2. Sciatica and myalgias of the lumbar region in which a coexistent mucous catarrh is frequently found; in one of the cases observed the result was most striking.
3. Pyelitis and Bacilluria when methods of diet, purgation,

and antisepsis

have failed to bring any amelioration of symptoms.

4. Gastric and duodenal ulcers; the method often reveals unsuspected abnormality such as old scybala and mucus whose presence would delay recovery.

5. Certain cases of Rheumatism and Arthritis showing colonic symptoms; Treatment by this Method Improves the General Condition of the patient and so puts him in a better state to battle with the disability of the joints.

When the source of the catarrh lies in the bowel, the douche, daily or less frequently given, makes a considerable difference in the symptoms. As a means of ascertaining the state of the internal lining of the colon, it gives results which are valuable both in conjunction with and independent of the clinical evidence." - Dr Alexander George Gibson, MD, FRCP, in "Proceedings of the Royal Society of Medicine", 5 May 1923.

Bastedo stated that colonic irrigations are indicated: "In chronic states of the bowel, such as are encountered in "mucous colitis" intestinal putrefactive toxaemia, and in cases in which a focus of infection is believed to reside in the bowel, as in certain cases of rheumatism, neuritis, secondary anaemia, and sundry run-down conditions." - Dr W. A. Bastedo, MD in "Colon Irrigations, Council on Physical Therapy", JAMA, 27 Feb. 1932.

Chapter 19

Colon Hydropathy in the Treatment of Psoriasis

The Successful Treatment by Colonic Lavation of Some Cases of Eczema, Psoriasis, Urticaria, Acne, and Pruritus

"There is ample proof that in some individuals ingested toxins absorbed in the alimentary canal show the chief evidence of that absorption by changes in the skin.

The most familiar case we recall and one easily demonstrable in some people is that of urticaria. In this instance the toxin is received from without and introduced into the system by some article of food. But it seems to me probable that urticaria, particularly when chronic, may also be due to auto-intoxication, the result of changes in metabolism of gastric, or more frequently, intestinal origin.

Those cases of eczema which have been considered to be associated with gout ("gouty eczema") are likewise caused by a faulty metabolism, if we admit, as most of us do, that the symptom-complex gout is due to a toxaemia of gastro-intestinal origin. Some people are born with an easily excited and irritable skin; a skin readily susceptible to internal and external pathogenetic stimuli or excitants.

In such cases this predisposition may show itself in infancy and early childhood by an erythema or an eczema, which is corrected by attention to the gastro-intestinal canal, a fact which points to a toxaemic cause generated in that region.

A sensitive nervous system is commonly present in those subject to skin affections, and undoubtedly the condition of the mind influences very much the condition of the skin, and not infrequently we learn when taking the history of a case of eczema that the attack has been preceded by mental strain and anxiety. This is not difficult to explain, for no

organs suffer more functional disturbance than those of digestion as a result of worry. A catarrhal condition of the mucous membrane of the stomach is not infrequent in such people, and if it becomes chronic loss of nervous energy and diminished muscular activity of the stomach may lead to its dilatation.

Fermentative changes then take place, and the formation and absorption of toxins may follow. Bouchard believed auto-intoxication to be more common from a dilated stomach than the bowel even in the condition of constipation, and he noticed eczema as occurring in 13 out of 100 cases of gastric dilatation, (Trans. Bouchard Auto-intoxication in Disease, p. 162, 1894).

But the benefit derived from colon lavation in certain cases of cutaneous eruptions suggests the skin disturbance to be more frequently associated with toxic absorption from the bowel than from the stomach, though doubtless the two absorptions are frequently associated.

Gastro-intestinal toxins seem to have a special affinity for the vaso-motor centres, thus resembling the toxins of malaria. And circulatory disorders are common with disturbances of the alimentary canal; therefore, it is not improbable that many cutaneous eruptions are due to irritation or stimulation of the vaso-motor centres by these toxins.

It must be remembered, however, that we all possess lines of defence against auto-intoxication, and it may be presumed that symptoms of toxaemia become manifest only when one or more of the defences (such as the cells of the intestinal mucosa and liver) become weakened and inefficient. This may happen when the intestinal epithelium is stripped by abrasions and ulceration (not uncommon in chronic constipation), or the liver or the kidneys become inadequate.

Eczema

This term covers a multiformity of cutaneous lesions due to a catarrhal inflammation of the skin, and 1/3 of the cases

of skin disease fall into this category. For 4 or 5 years I have been making observations which have led me to the conclusion that disorders of the alimentary canal, and especially of the colon, must be given a high place in the etiology of many cases of eczema.

Chronic constipation is common in such cases; and is frequently associated with a catarrhal condition of the mucous membrane of the colon in which the presence of mucus in the ejecta is very apparent. Mucus when normally secreted is invisibly mixed with the faeces, but when seen in any quantity is abnormal, and frequently I have found after some experimental douches in eases of eczema, usually with, but at other times without, constipation, a considerable quantity of mucus, and treatment directed to this abnormality has resulted in the cure of the skin manifestation.

I have therefore been led to connect the abnormal condition of the colon with the eczematous condition of skin, and to consider the latter as due to a toxaemia of intestinal origin. When there is no skin eruption following a definite type with this condition of colon, there is usually a muddy appearance of the skin noticeable, and sometimes, in addition to this, an eczematous or other eruption.

A gentleman, aged 66 years, a free liver, was sent to me last October, when I found nearly the whole of the body affected with eczema. There was great pruritus, preventing sleep. The history pointed to a bowel infection, for, like not a few of these cases, there had been a local anal eczema and pruritus for a year or two, and the pruritus was so bad that an operation had been decided upon to relieve it.

It had, however, been found by bacteriologial examination that the colon was unhealthy, and a course of intestinal lavation was decided upon. After each intestinal douche of alkaline sulphur water, which brought away considerable quantities of mucus, the patient had an immersion bath of a similar water, and he drank a stronger sulphur water each morning. The improvement was very rapid both internally and externally, for as the colon became healthier and free from mucus the eczema and pruritus

gradually disappeared. The patient returned home on the eighteenth day after treatment with no eruption, but he was advised to continue intestinal lavation at home for some time as a precautionary measure.

Other cases of eczema of a more local character have been treated equally successfully in the same way, and some of these have had a definite association with catarrhal inflammation of the bronchial tubes and asthma, and in other cases with gastric dilatation.

Psoriasis

Whilst authors vary very much as regards the etiology of psoriasis, the late Dr. H. R. Crocker showed a connexion between it and digestive disorders, particularly after the age of 40 years.

He says:

> *"Gout, or its predisposing factors: dyspepsia, constipation and alcoholism together made up 50% of 30 consecutive cases that I was consulted about." - in "Twentieth Century Practice of Medicine".*

Stelwagon says of Psoriasis:

> *"Digestive and nutritive disturbances of all kinds are certainly provocative as to recurrences and of probable causative influences". - in "Diseases of the Skin"*

Pringle, Whitfield, and Brooke point to little or no connexion with gout, whilst the other authors quoted do; but arthropathies are mentioned by them as being seen with psoriasis, and rheumatoid arthritis is specially mentioned, which may be considered as frequently due to intestinal infection. There is, as in the case of eczema, an inherited predisposition to the disease, but an external cause may provoke its development.

In several cases when the symptoms and experimental douching have pointed directly to an intestinal causation the treatment already described has been brilliant in its results. In other cases with no particularly well-marked colitis good results have often, though not invariably, attended washing out the colon.

A lady, aged 57 years, unmarried, consulted me last year for psoriasis of 45 years standing; there was inheritance in this case, for her mother had also suffered from it. She was of a nervous temperament and was much troubled with chronic constipation. The colon was considerably distended and the stomach somewhat dilated, and she was conscious of having passed mucus with the stools for years. She had been accustomed to come to Harrogate for many years and had derived a certain amount of benefit from drinking sulphur water and having sulphur baths.

I ordered the colon to be washed out with 30 ounces of alkaline sulphur water and, as is the custom, this was repeated after all faecal matter had been removed, and followed by an immersion bath of the same water.

With a steady improvement in the condition of the bowel there was seen a decrease in the cutaneous eruption, and with 3 weeks treatment the general condition was very satisfactory and better than it had been for years.

I advised intestinal lavation to be continued at home, and only a few days ago I heard from this lady that she was "worlds better."

A very successful case with colitis was that of an army officer who had a history of psoriasis for many years. It was one with an unusually marked tendency to the gyrate and circinate variety on the trunk, whilst in the extremities the ordinary scattered, rounded patches were seen.

The patient was very much better for his first course of treatment and was quite free from eruption after the second.

I have not had a large experience of this treatment in cases of psoriasis, but in every case I have treated in this manner there has been a very considerable improvement.

I am inclined to think, however, that the large doses of arsenic which so many of these cases receive are detrimental

in aggravating any catarrhal condition of the mucous membrane of the stomach and bowel.

Urticaria

I have already stated that a chronic condition of urticaria may be kept up in certain individuals as the result of changes in metabolism producing toxins which after absorption bring about vascular changes in the skin. I am now excluding the poisons of shell-fish and drugs which are introduced from without. I have found the cause in 2 cases of urticaria to depend upon a toxaemia due to an abnormal condition of the mucous membrane of the stomach and colon.

A married lady, aged 37 years, with a hypersensitive nervous system and unstable circulation, was sent to me last year, having had periodic attacks of urticaria for a year which could not be traced to any article of diet.

The history showed constipation and slight gastric disturbances for several years, and on investigating the condition of the colon mucous colitis was found to exist.

A course of intestinal douches with deep massage of the abdomen, in order to give better tone to the intestinal wall, soon cleared up the mucous discharge, and brought about a better condition of peristalsis which has become permanent.

No recurrence of the urticaria has taken place since the treatment 12 months ago. Another very similar case to this was that of a young married lady of much the same constitutional type, and in her case like treatment has been attended with equally successful results.

Acne

A number of cases of acne vulgaris and of acne rosacea, the latter being in association with acne vulgaris, have been treated on these lines, and I agree with Whitfield in regarding seborrhoea as the primary cause of the acne disorder. Such patients are frequently of a nervous temperament, frequently suffer from gastric disorders and

constipation, and instability of the peripheral circulation. Though some authorities (such as Bartholomy in "Etiologie et Therapie de l'Acne", Archives Generales de Medecine, vol.ii., 1889) have frequently found dilatation of the stomach associated with acne, I have generally found that an unhealthy condition of the mucous membrane of the colon is a greater source of the toxins, predisposing the skin to parasitic invasion, than is gastric dilatation.

Intestinal lavation has been prescribed with success, but as in practically all these cases there is found a lack of proper attention to the scalp, this as well as the face must receive special attention.

A lady living in India and much exposed to weather consulted me last summer for acne rosacea. Her age was 42 years, she was gouty, and her circulation was poor. She had marked constipation, but had but little digestive trouble. The eruption was more of the scaly papular kind than nodular, and without suppuration.

There was an unhealthy condition of the scalp, and attention to this and the face, together with intestinal douching, caused a fairly rapid improvement, which I learn continues. Similar treatment has been equally successful in two cases with suppurative nodules and acne vulgaris, and in other cases of acne simplex, and in some this was after vaccine treatment had failed to do good.

Pruritus

The causes of pruritus are many, but undoubtedly the nervous and gouty temperaments are specially favourable to its development; and in the majority of cases auto-intoxication the result of gastro-intestinal and hepatic disturbances is the leading cause of this distressing ailment.

There is no primary lesion of the skin, but by scratching, which is difficult to avoid, eruptions do arise, and it must be borne in mind that pruritus is frequently the precursor of a well-recognised attack of eczema, lichen, or urticaria.

It may be general, affecting more or less the whole body, or local, involving the anus, the vulva, the palms of the

hands, or the soles of the feet. Very frequently there are marked vaso-motor disturbances, and in the case of a lady with pruritus confined chiefly to the lower extremities, and associated with mucous colitis, a very variable peripheral circulation existed. With pruritus ani there is not infrequently a certain amount of eczema around the anus, and the rectal mucosa is often involved in the itching.

In all cases where eczema has existed I have found it to be the external and visible sign of a catarrhal condition of the mucous membrane of the colon, and internal douches of alkaline sulphur water, followed by immersion baths of the same water, have brought about such a marked change in the condition of the colon that the local skin lesions and irritation have soon cleared up.

The method adopted in carrying out this special treatment by lavation for mucous colitis, associated or not with skin eruptions, is as follows. An alkaline sulphur water is generally used both for the intestinal douche and for the immersion bath which follows it.

The object of the internal douche is to wash away old faecal matter and mucus from the colon and to give the mucous membrane an antiseptic dressing.

A warm immersion bath of sulphur water follows the internal douche, and when in this bath a hot douche at a higher temperature plays upon the wall of the abdomen under water from a large nozzle with fine perforations, and is chiefly directed over the site of the colon. The immersion bath not only opens out the peripheral circulation, and thus relieves any congestion of the viscera which may exist, but is beneficial to the skin and nervous manifestations the result of auto-intoxication.

I have shown in "The Influence of the Nervous System and External Temperature upon Certain Circulatory Changes Concerned in the Etiology of Catarrh, Ulcer, and Simple Dilatation of the Stomach", The Lancet, Vol. i., 1906, when dealing with catarrhal and dilated conditions of the stomach, that in most of these cases there is a serious loss of balance in the circulation under the domain of the splanchnic nervous system in the causation of which toxins

play an active part, for there is too much blood in the splanchnic area and too little in the periphery, and the restoration of the circulation is therefore all-important.

In all cases it is endeavoured to make the treatment educational, and patients are advised to continue it at intervals after leaving Harrogate, but a second course of treatment is desirable in all chronic cases of colitis and skin disease if there is any tendency to recurrence." - Dr Alfred Mantle, MD, MRCP, Consulting Physician to the Royal Halifax Infirmary in "The Lancet", 30 July 1910.

"Lactic Acid and Colonic Irrigation in the Treatment of Psoriasis. — Dr Winfield, MD has given lactic acid in psoriasis, believing that the disease was due to auto-infection and disturbed metabolism, caused by putrefaction and fermentation of the con tents of the intestines. Combined with this, he has given high colonic irrigations, for the reasons that psoriatics are more or less constipated, and because the presence of mucus and shreds in the stools indicated a low degree of inflammation of the mucosa of the lower bowel. Using control cases to test out the treatment, he found that the cases treated by Colonic Irrigation responded more readily than the controls." - in "New York Medical Journal", 28 Sep. 1912.

Lactic Acid and Colonic Irrigation in the Treatment of Psoriasis

"Some one has said that if one wishes to learn how much is known of the etiology of a certain disease it is only necessary to look at the chapter on its treatment; if the list of remedies is large and diversified, it is an evidence that but little is known of the cause of the disease in question.

In spite of the great advance made in dermatology, psoriasis still remains a disease that baffles our therapeutic skill, mainly because we are uncertain as to its etiology. This introduction will serve as an excuse for presenting a paper on such a trite subject as psoriasis. It is perhaps necessary to touch on the etiology of this disease, in so far as it is necessary to explain why this treatment was instituted.

The claims of those who think psoriasis is of parasitic origin have much to verify their belief, but on closer study of the subject it becomes apparent to the unprejudiced observer that the parasitic theory is not yet proved, while on the other hand the belief that this disease is the expression of some disturbance in metabolism seems to be nearer the correct solution of the problem; for many cases of psoriasis have been observed in which there were unmistakable evidences of faulty metabolism, as for instance rheumatism appearing simultaneously with the outbreak of the cutaneous disease.

In these cases the psoriasis is perhaps only a symptom of the general systemic disturbance.

It might not be beyond reason to assume that the fundamental cause of the dermatosis is some disturbance of the metabolic function, which by lowering the cutaneous resistance renders the skin susceptible to the invasion of some special organism that, providing all things are favourable for its growth, causes the characteristic lesions of this common and intractable disease.

Having always been of the opinion that psoriasis was due to metabolic changes and not primarily a parasitic disease, several years ago I began to treat many of my patients according to the method outlined in the title of this paper, and it has been my gratifying experience that the symptomatic cure and the permanency of the cure are far better than when the other well-known remedies and measures were employed.

All the cases receiving lactic acid and Colonic Irrigation were controlled by a similar number treated by the classical methods.

Long before the dictum of Metchnikoff that the lactic acid bacillus was the remedy for all the ills the flesh is heir to,

even old age, it was a well-known fact that milk, buttermilk and fresh pot cheese prevented and checked intestinal fermentation and putrefaction.

This action is brought about by lactic acid manufactured by the lactic acid bacillus; further experimentation proved that free lactic acid would have a similar inhibitory effect on the fermentative putrefactive changes of the contents of the intestinal tract.

Later Metchnikoff demonstrated that the lactic acid bacillus inhibited and prevented the growth of the colon bacillus and many of the other deleterious bacteria of the alimentary canal.

Taking these various views and facts together it occurred to me that lactic acid might be of benefit in psoriasis, especially if the psoriasis were due to auto-infection, and disturbed metabolism caused by putrefaction and fermentation of the intestinal contents.

The high Colonic Irrigation was instituted because of the fact that Psoriatics are more or less constipated, and examination of the stools of many patients reveals the presence of mucus and shreds, indicating that there is a low grade of inflammation of the mucosa of the lower intestines.

In my cases the irrigations, in every instance, cured the chronic constipation by stimulating peristalsis; they also washed away all decomposed and fermenting refuse that was lodged high up in the colon.

If Psoriasis is one of the evidences of faulty metabolism, we have here an ideal combination for combating auto-intoxication and metabolic disturbances, and thereby removing the psoriatic etiologic factor.

Lactic acid disinfects the alimentary canal by its antibacillary action; the **Colonic Irrigation washes out any decomposing masses in the intestinal tract, relieves the constipation by stimulating peristalsis, tones the intestines by improving the circulation, relieves any passive inflammatory changes that might be present and ultimately elevates the cutaneous resistance by improving the general health.**

Nothing original is claimed for this method of treatment

for both lactic and nitric acid have been used in psoriasis, and **Colonic Irrigation has been recommended by a number of observers as a method of treatment in Psoriasis, Eczema and other diseases of metabolic origin.**

This report is based on the results obtained in 40 cases, 32 male and 8 female patients, natives of nearly every part of the world, although the Anglo-Saxon predominated, 80% being either German or English, or of that descent; the ages ranged from 6 to 59 years.

The stay in the hospital ranged from 4 days to 4 months, the average stay being 6 weeks, 5 of the patients had signs of kidney degeneration, such as albumin, casts, etc.; 5 others suffered from rheumatic arthritis.

In 23 cases the attack was cured, 16 were improved; many of those who showed slight improvement were in the hospital for only a short time, some as brief as 4 days; in one hospital case, that of the patient who had tuberculous adenitis, no improvement was noted after 4 months of treatment, 30 of the patients received only the lactic acid and the irrigations; the 10 remaining had in addition chrysarobin ointment.

It is an interesting fact that in those patients who exhibited chronic thickened patches, and also those who had had many acute exacerbations in addition to the chronic lesion, the outlined treatment seemed to act beneficially up to a certain point.

The acute symptoms would quickly disappear and the fresh patch clear up, but the old chronic ones would persist; then if chrysarobin were used, these patches would perceptibly melt away.

The urine of all of the patients was examined and in most of the cases it showed evidences of metabolic disturbances.

The urinary changes in connection with psoriasis, and the effect of this line of treatment on these cases will furnish the subject for a further communication.

Practically all of the 40 patients were chronically constipated, and in many cases the stools contained mucus and shreds.

To illustrate the type of case in which the treatment was used, I report in detail two histories:

Case 1. The first patient was a youth of 17, who Except for a sluggish circulation had always been perfectly healthy, had developed rapidly and was a great overgrown boy. He had a seborrheic skin and was of a constipated habit.

He came from a home of affluence, but was accustomed to unwholesome food.

During the summer a few psoriatic patches, 20 in number, developed over various parts of the extensor surfaces of his body; in spite of treatment they remained more or less prominent throughout the summer and winter; in the following spring, nearly a year after the disease first appeared he took a strenuous college entrance examination and became greatly reduced in health; his constipation became more pronounced and his general resistance was considerably below par.

Just as he was preparing to leave for his home an acute attack of psoriasis rapidly developed, involving nearly the whole cutaneous surface.

After the attack had lasted for 2 weeks he was referred to me. I immediately placed him in the hospital, and instituted the lactic acid and Colonic Irrigation treatment; the external treatment consisted of lanolin and cold cream, used simply to keep the skin from scaling.

His condition rapidly improved, and at the end of the 3rd week he was dismissed from the hospital cured.

Case 2. The second patient, a child, aged 6, was sent to me about 3 months after the primary attack. I hesitated to place her on this treatment, but after trying the classical remedies for 6 weeks without any benefit, lactic acid and Colonic Irrigation were instituted; the good effects became apparent at once, and in 2 months the patient was well.

She has had 3 recurrences, and each time the same treatment was used. She is now 10 years old and is free from any cutaneous blemish.

Every case that is here reported was controlled by others similarly hospitalized and treated by the classical methods.

The cases treated by Colonic Irrigation responded much more readily than the controls; consequently, it would seem that this report is justified, for it is the summary of 40 cases in which either cure or marked benefit was obtained from a simple line of treatment." - Dr James Macfarlane Winfield, MD, in "Transactions of the Section on Dermatology AMA", Vol.63, 1912.

Chapter 20

The Peristaltic Cycle of the Colon

"Peristaltic contractions of the colon are initiated by the passage of food residue into the caecal pouch or the dumping of faeces into the rectal pouch. The introduction of fluid into the rectal pouch is an artificial measure for stimulating colon peristalsis.

The peristalic pace-maker seems to be situated in the mid-portion of the transverse colon at a point commonly known as Cannon's ring. During irrigation, when the rectal pouch is distended, the peristaltic contraction begins at Cannon's ring, splitting into two contraction waves, one travelling towards the caecum and the other towards the rectum.

During irrigation we are concerned with the contraction wave travelling towards the rectum, which, when approaching the rectum, increases the pressure of the fluid instilled within the rectum, which creates a desire for defecation. The flow of fluid is then reversed, and instead of flowing into the rectum, it is allowed to escape through the tube into a waste receptacle.

The sudden decrease of the intra-rectal pressure causes an instantaneous dissipation of the contraction wave and reverse peristalsis sets in, propelling the fluid remaining in the rectum and sigmoid to the higher levels of the colon. This is re-enacted until the reverse peristalsis of the lower colon has propelled the fluid into the right half of the transverse colon, when the next stimulus promoting peristalsis will cause the portion of the contraction wave, which is a reverse wave from Cannon's ring to the caecum, to fill the caecum with the instilled fluid.

The fluid can be demonstrated in the transverse colon and caecum by succussion sound or by auscultation. This procedure is kept up until the colon is filled from the rectum

to the caecum, and it is possible for the colon to retain from 4.5 litres to 7 litres of fluid. This requires from 5 to 7 minutes time.

The patient is then allowed to go to stool and it requires from 15 to 30 minutes to empty the colonic tract, the colonic peristaltic cycle being this:

A propulsive wave from Cannon's ring to the rectum; a reverse wave from Cannon's ring to the caecum; a mildly propulsive wave from the caecum to Cannon's ring; and a mildly reverse wave from the rectum to Cannon's ring.

Whenever a portion of the caecal contents is disgorged to the left side of Cannon's ring, it is expelled during the next cycle. This peristaltic cycle explains the churning motion of the caecum and the moulding function of the descending colon and sigmoid. This briefly describes what is seemingly a complicated technic, but one which, when mastered, is rapid, efficient, and devoid of much of the unpleasantness that attends the usual high irrigation. It is designated as a mechanical drainage because that is the prime purpose of its administration.

In addition to its diagnostic and drainage value, it is useful in a correctional way, as for hydrostatically stretching adhesions or straightening out angulations of the colon. This is a very painful and dangerous procedure, which should not be attempted until after the physician has had enough experience to formulate that intangible something called judgment, before subjecting his patient to this non-surgical procedure.

Acidophilization of the intestinal tract is believed to be most efficiently accomplished by the administration of milk cultures of Bacillus acidophilus prepared either by the Kettger or the Eggston-Norman technic, which insures a high numerical count. In some in stances, the organism is instilled directly into the rectum. The oral administration is, however, the most valuable and the one to be recommended. Occasionally, there are cases in which the colon bacillus appears to be absent from the intestinal flora. This is

especially true when the flora is predominantly streptococcic, and in some cases, we combine non-toxic strains of colon bacillus with the acidophilus.

The colon bacillus is readily implanted into the intestinal tract. It is believed that the colon bacillus may be either a helpful or harmful organism, depending upon its microorganic associations.

Autogenous vaccines are prepared from the cultures of the faecal contents obtained during drainage, and are combined with cultures taken from other foci, as teeth, tonsils, etc.

The initial dose is small and it is gradually increased every fourth day, until a very large dose is reached. It is given for a long period of time. If there are any unfavorable reactions, the dose is diminished and we cautiously reapproach the dose level which provoked the unfavourable reaction." - Dr N. Philip Norman, MD in "International Clinics", 1923.

Schematic representation of the Peristaltic Cycle of the Colon

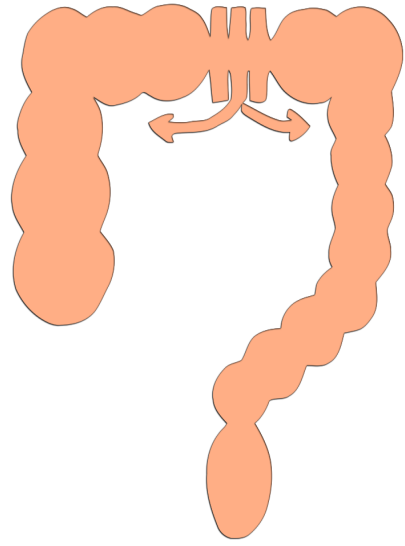


Fig.1
The colon is at rest and free from peristalsis

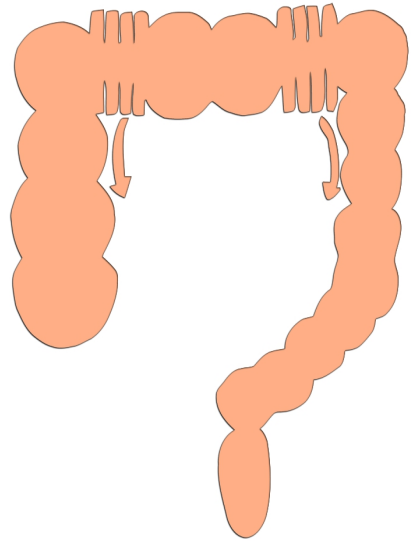


Fig.2

The peristaltic contraction has been initiated by the instillation of fluid into the rectal pouch. The stimulus originates in the rectum, and the peristaltic contraction begins in Cannon's ring. Arrows indicate that the peristaltic wave is splitting into two waves which travel in opposite directions.

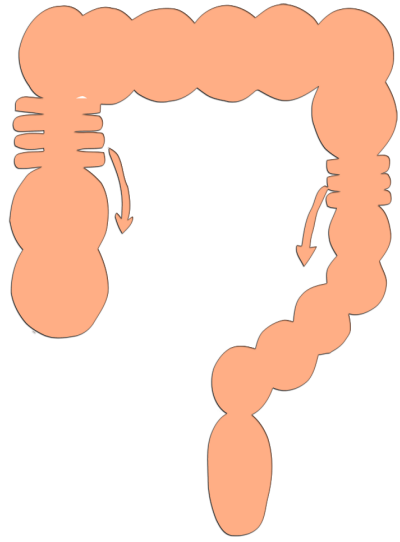


Fig.3

The peristaltic waves have now split into two distinct waves and are travelling towards the terminal points, the rectum and caecum. This is the peristaltic cycle operative during irrigation: A reverse wave from Cannon's ring to the caecum and a propulsive wave from Cannon's ring to the rectum. Arrows indicate the direction of the peristaltic waves.

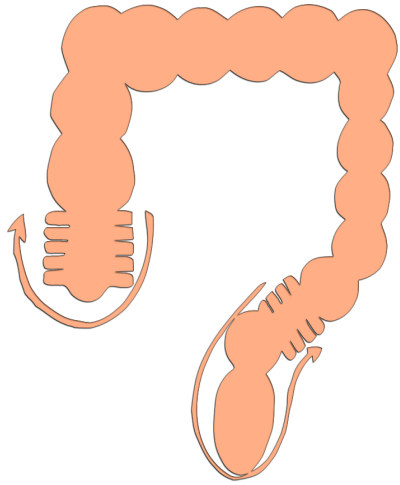


Fig.4

This figure graphically illustrates the progress of the peristaltic waves to a point beyond the colonic flexures, the arrows indicating the direction of the peristaltic waves. The segments previously contracted are now-relaxed, as the waves approach the termini—the caecum and the rectum.

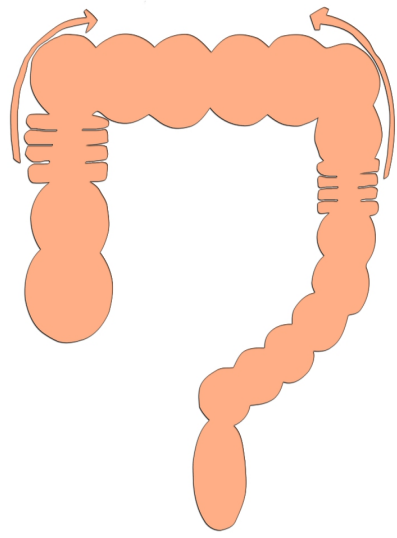


Fig.5

The peristaltic waves have now reached their termini. Arrows indicate that the directions of the waves are changing and that the second phase of the peristaltic cycle is beginning, i.e., a propulsive wave from the caecum to Cannon's ring and a reverse wave from the rectum to Cannon's ring. During irrigation the intrareetal pressure is raised by 2 factors:

1) The rate of now of the instilled fluid;
2) The rate of travel of the peristaltic wave from Cannon's ring to the rectum. As the rectal pouch and sigmoid are ballooned out by the instilled fluid and as the peristaltic waves approach the distended portion of the gut, the patient develops an urgent desire to discharge the fluid.

The fluid is allowed suddenly to escape through the tube which causes an instantaneous dissipation of the propulsive wave. There follows an interval of rest.

During this interval the fluid finding less resistance in travelling upwards through the lumen of the gut than out of the colon tube, follows the line of least resistance. The next

phase involving the left side of the colon is a reverse wave from the rectum to Cannon's ring. This wave propels the instilled fluid to the higher levels of the colon.

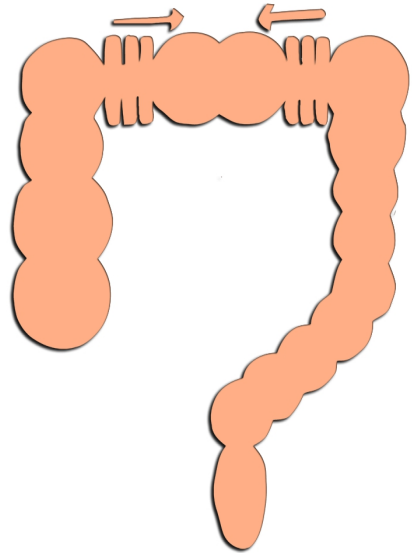


Fig.6

The arrows indicate that the peristaltic waves have now definitely reversed their direction and are travelling towards the point of origin, i.e. Cannon's ring. The caeca! contents are propelled into the ascending and transverse colon.

The contractile intensity of the right wave seems to diminish after it passes the hepatic flexure, gradually fading as it again approaches Cannon's ring. The wave in the left side of the colon propels instilled fluids into the transverse colon. This wave also diminishes in contractile intensity after passing the splenic flexure and is gradually dissipated by the time it reaches Cannon's ring.

Normally, the right wave admixes the cecal contents while the bacteria perform their carbohydrolytic function. At the end of each peristaltic cycle a portion of the contents in the right half of the transverse colon passes through Cannon's ring, a structure with a function analogous to that of the pylorus, and after the requisite amount of water is absorbed, while the peristaltic cycles of the left side is in operation, it

passes to the lower colonic levels in a semi-solid state and is moulded by the reverse waves of the left side.

During irrigation the waves to the left of Cannon's ring seem to be more active than those to the right of this structure. When the patient is discharging the fluid, the reverse is true.

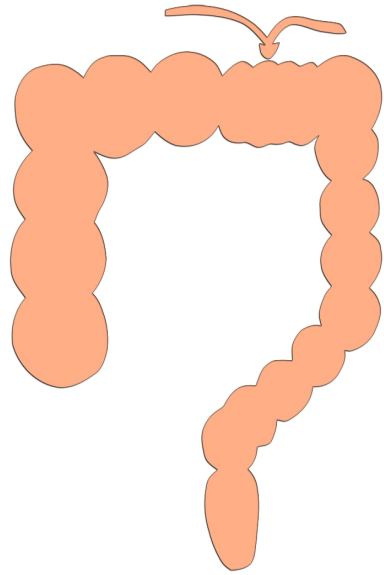


Fig.7

The peristaltic waves having passed through the colonic flexure's, the contractile intensity is diminishing as it approaches Cannon's ring.

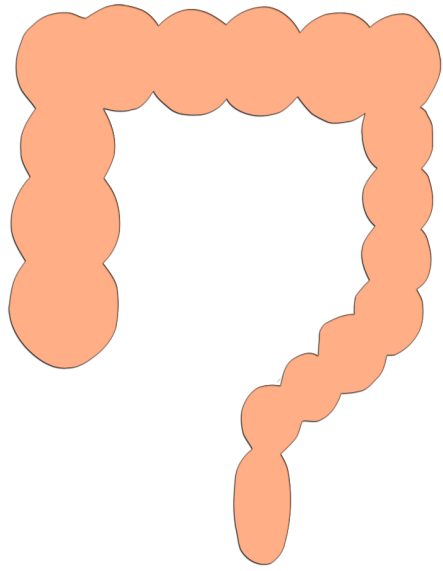


Fig.8

The peristaltic waves are finally being dissipated in the structure of Cannon's ring the point of origin. During irrigation a portion of the fluid propelled into the transverse colon by the reverse wave from the rectum to Cannon's ring passes to its right, and is propelled into the caecum by the next peristaltic cycle beginning at Cannon's ring. Normally, during digestion, the reverse is true. The cycle then repeats itself as in Fig.1.

Chapter 21

The Effects of Colon Irrigation

"The mere ingestion of large quantities of liquids often produces most beneficial results; and their utility may be traced, as Dr. Holland has well shown, to their mere mechanical effect in washing away matters, excrementitious or noxious, from the alimentary canal; their influence in modifying the blood; and their effect upon secretion and excretion, especially the kidneys and skin." - Dr. Symonds, MD in "The Lancet", Vol.39, 1842.

"In cases of vasomotor paralysis hot rectal irrigations and hypodermoclysis appear to be rational treatment" - Dr Edward E. Cornwall, MD, "The Heart in Lobar Pneumonia and its Treatment", New York Medical Journal, 14 January 1911.

"The effects of full baths are so well known. The autonomic nervous system is divided into three parts, each of which is called into play by certain Hydrotherapeutic Measures. The bulbar autonomic is influenced by bathing the face and, possibly, by throat compresses. The thoracic outflow, or sympathetic proper, is aroused by the majority of general and local treatments; and the sacral part is influenced by hip baths, douches and irrigations." - Dr. C. F. Sonntag, MD in "Proceedings of the Royal Society of Medicine", 8 March 1928.

Colon Irrigation or Enteroclysis

"Definition: The word enteroclysis is derived from two Greek words enteron, meaning intestine, and klysis, a washing out of stagnant or waste material.

> *"Between Enemas and Irrigations there would seem to be no sharp dividing line yet they are distinct in their purpose. The term irrigation conveys the idea of washing; therefore, while the ordinary enema is given with the purpose of inducing defecation, the irrigation is administered not to induce defecation but to wash out material situated above the defecation area and to lavage the wall of the bowel as high as the water can be made to reach." - Dr Walter Bastedo, MD*

Therapeutic Uses

Colon Irrigations are given for the following purposes:

1. To cleanse the colon of faeces, gas, and excess mucus, bacteria and their products, and in cases of poisoning to dilute and remove any of the toxic agent that may be present in the large intestine.

2. To supply heat to the colon, or to the pelvic and abdominal organs surrounding the large intestine, for the relief of pain and to bring about circulatory changes.

Cold as well as hot irrigation may be used for the thermal effect on the colon and nearby organs. Dr Stevens, MD suggests ice-water enemas in the treatment of sunstroke. Houston recommends cold-water enemas as refreshing and comforting to patients with typhoid fever, and says:

"A large cold-water enema will reduce temperature as much as a sponge."

To supply the body with the fluid that may be absorbed during the administration of the irrigation." - Virginia Henderson, RN, AM, Bertha Harmer, RN, AM in "Textbook of the Principles and Practice of Nursing", 1939.

Intestinal Irrigation (Enteroclysis) and Enemata

"The two procedures serving for the introduction of water into the bowel by way of the anus are designated as:

1. Intestinal Irrigation (enteroclysis)
2. Enemata

Irrigations are employed principally for the purposes of healing local lesions of the mucosa, cleansing the bowel of toxins or putrefying foods, or in order to stimulate the heart action and the function of the emunctories, etc.; while, on the other hand, enemata are to be retained and are used to stimulate peristalsis, soften hardened fecal masses, and to secure an immediate stool without the aid of purgation.

Indications

When the atonic condition is confined to the rectum alone, coldwater enemata should never exceed 250ml, and should be frequently repeated; not, with the idea of securing an immediate evacuation, but with the object of effecting a permanent cure through the tonic action of the water upon the bowel.

Chronic costiveness is usually caused or complicated by intestinal atony, dilatation of the colon, deficient glandular secretion, obtunded sensibility of the mucosa, inefficient peristalsis, inactivity of the emunctories, impaired circulation, and auto-intoxication, all of which conditions

can usually be relieved or cured by hydriatic treatment.

Cold enteroclysis and enemata are followed by a powerful reaction, which directly or reflexly appears to benefit the whole body, more especially the gastro-intestinal tract.

Water employed in this way acts not only as an irrigant and solvent to cause evacuation of the retained feces, but as a powerful tonic, which tones up the intestinal musculature, increases peristalsis, causes the glands to secrete more mucus, which lubricates the bowel, improves digestion, augments the circulation, and diminishes auto-intoxication through stimulation of the activity of the skin, kidneys, and liver.

Constipation due to acute proctitis can be relieved in short order by alternating cold (18°C.) and hot (38C.) enemata; the former to be retained for five, the latter for ten, minutes. Hot-water enteroclysis may be used to advantage in the treatment of both spastic and atonic constipation, though it is employed very much more frequently for the relief and cure of the former. Turck has demonstrated that the action of very hot water (41° C.) increases peristalsis, the motor power of the stomach, and the flow of urine.

Hot-water (38 C. to 41 C.) enemata are indispensable in the treatment of enterospasm (spastic constipation), which interferes with the fecal current by producing partial or complete obstruction.

Relief from such intestinal spasms is obtained more quickly when hot enteroclysis is re-enforced by hot fomentations applied to the abdomen directly over the segment of contracted gut. I have witnessed the prompt recovery of a great many patients with spastic constipation of variable standing after the intelligent and persistent use of the two hydriatic procedures just mentioned. I have also relieved many patients suffering from flatus, colic, sphincteric spasm, rectal tenesmus, acute proctitis, inflamed hemorrhoids, prostatitis, abdominal and pelvic inflammation, and irritability of the abdominal and intestinal muscles, with hot water applied to the abdomen or injected into the bowel.

The beneficient action of water on the conditions named is due principally to the high temperature, which has a soothing effect upon the muscles and bowel, causing the fibers to relax and permit the feces to pass. Through its sedative action, it also does a great deal toward the relief of pain and irritability, while lessening inflammation in or near the bowel.

Warm (38° C.) and hot (41° C.) high and low enemata are of still further service in the treatment of spastic and atonic constipation by the removal of toxins of all kinds and scybala, which other wise would accumulate and do great harm. As a result of the injections an extra amount of water is absorbed, which serves to stimulate the function of the skin, kidneys, and liver, causing a more perfect elimination, and thereby helping to prevent and relieve auto-intoxication and its dire results.

Enteroclysis and enemata are resorted to also for purposes other than the treatment of constipation, for they are frequently employed to relieve surgical shock, increase the volume of blood after copious hemorrhages, irrigate inflamed, ulcerated, and otherwise diseased intestines, and carry nutriment into the colon after surgical operations upon the throat, esophagus, and stomach; also in the treatment of gastric ulcer, gastric dilatation, or hematemesis and other conditions wherein the administration of nourishment by way of the mouth should be avoided.

Contraindications

Copious injections, as a rule, are contra-indicated in patients suffering from phthisis, arterial sclerosis, dilatation of the heart, strangulated hernia and stricture, ulceration, dilatation or enteroptosis of the colon.

In the presence of a stricture the water will be retained and cause intense pain; when there is ulceration, rupture and peritonitis may ensue; when the colon is dilated, the already stretched and weakened muscular fibers suffer further damage, and when the gut is displaced, this condition is markedly aggravated, for the reason that the

weight of the water causes a still further sagging." - Dr Samuel Goodwin Gant, MD in "Constipation, Obstipation and Intestinal Stasis, Autointoxication", 1916.

The Effects of Colonic Irrigation

"For 20 years we have heard more or less of colonic irrigations, but during the last ten years we have heard decidedly more than ever. In fact, their use is so general that ladies sitting on the porch of a summer hotel openly discuss their merits. Even hard-headed business men recommend them to each other during office hours "for that tired feeling." Deficient elimination is the main factor in many serious diseases. Unevacuated waste matter clogs not only the colon but the whole system, especially the mind. Is there anything more depressing and enervating than autointoxication?

Internal cleanliness, as external cleanliness, is most essential. Irrigations never do harm. Sometimes they are very useful as a first aid in diagnosing a case. A patient with a sense of humour remarked the other day:

> *"It is a wonderful relief to me to have been cured of appendicitis, a fallen kidney, bladder trouble, and a faint suspicion of female disorder with the first colonic irrigation."*

The proof that her ailment was a packed colon was a great mental relief.

On the same day a patient 65 years old remarked:

> *"I do not expect to return to youth, but I am looking for ward to a more comfortable old age."*

And well he might! For, like many others whom we meet every day, he had eaten everything he wished all his life, considering that his desire for it and continued good appetitie were proofs that it was healthy for him. He had one movement of the bowels every morning a so-called "normal human."

A physician advised irrigations. He was so filled with flatus and effete matter that several irrigations were necessary before he was cleared out. After a month his blood-pressure, which had been over 200, was normal, his mind clear, and his step elastic. His heart trouble had improved and the bowels had not acquired that "bad irrigation habit." Instead, as is usually the case, they are more active than ever. Now he has a copious stool every day and when he has an internal bath there is little residue.

Our grandmothers gave their children sulphur and molasses for a spring house cleaning. Very well. But how much better to teach the children (big and little) to keep the house clean all the time. Often a patient will tell you she takes a cathartic every night.

"Had two movements this morning."

You empty the rectum, getting very little residue. However, after irrigating for half an hour or more, when you are on the verge of agreeing with her that the bowels are empty, but still persisting in your work, suddenly something opens and lo there is expelled an undreamed-of quantity of faecal matter. Patients wonder where it all comes from. Still it is there. Often my patients pass along the trite phrase:

"Irrigations are so unnatural."

When they analyze their whole manner of living what do they find that is natural?

Here let me digress from my subject for a moment to point out that now-a-days we have become so highly civilized and refined that we eat chiefly white bread and sit

on high toilets. Is that natural? And is it any wonder that we are a constipated people? Why not have the bran left in the bread we eat and a toilet low enough to put one in a squatting position when evacuating the bowels? Herein we can profit by copying the French. They seem to have learned from the primitive tribes that the call of nature should be obeyed at once, and have provided many public conveniences constructed along proper lines. But to return to colonic irrigations. It matters not which method is employed so long as the nurse is thoroughly trained and experienced in her work. She will get the desired results and will know whether she really irrigated the colon or merely washed out the rectum.

> *"A little water let in and a little water let out, using perhaps 23 litres and irrigating until the water returned is clear."*

This report means nothing to the doctor who really understands irrigations. He will be skeptical as to whether or not the water really got beyond the rectum until he knows the nurse's conception of a colonic irrigation. Some years ago I was called on a case and asked to use the patient's method. I did so, using plenty of water with practically no results. She told me that on previous occasions she had had similar irrigations at night and 7 movements the following day. I was not satisfied, for I believed there was an impaction.

Knowing that the fluid in the colon is readily absorbed by the blood and carried by the circulation through the body, I asked if I might try my own method. She consented, and within half an hour she had the 7 in 1.

Her colon was cleaned out and she was not absorbing that poison all night long.

Irrigations are not cure-alls; but they do bring patients out of the Slough of Despond very quickly and alleviate much suffering. For instance; for 5 years Mrs. Blank had a swollen face, eyes almost closed. (All her life she has been constipated.) During this 5 year period she grew steadily

worse. After a few irrigations the swelling was reduced. The bronchitis was relieved completely. Previously she could not stoop or have her abdomen touched on account of the Soreness. Now she can stoop, wear her corsets, and be massaged with comfort. When she walks she no longer has the feeling that she is aboard ship.

If irrigations could do this in 2 weeks now, how much more could have been accomplished 5 years ago had anyone recommended a thorough house-cleaning?

The following account summarizes the experience of a man of forty who has led a very active life.

"Over a year ago I was told that my condition was fast becoming serious in its nature. I could not walk more than a block without stop ping to rest, as it gave me severe pains in my chest and down my arms. I took nitroglycerine until I felt the top of my head would blow off. I stood this as long as I could, then went to my old friend, Blank. After examining me he recommended a simple digestive remedy and colonic irrigations. My improvement was almost immediate, and I am doing more things after 5 treatments than I have been able to do in almost 2 years. My doctor has given me a clean bill of health so far as my heart is concerned. The thing that impresses me most is that the treatment is so logical."

Another Example

About 12 years ago this patient had what the doctors called an ulcer on the cornea of the eye. Later she noticed that it recurred about every 6 months. Two years ago a physician told her it was intestinal poisoning and advised irrigations. Thereafter she took one every month.

At the 6th month she had an intimation that another ulcer

was coming, but it never developed and she has never had one since. How ever, as a precaution, she took 2 irrigations a week for 1 month, and 1 occasionally during the following year. Recently she has had 2 treatments a month as she has been troubled with pruritus. After the second treatment she never felt it again.

As she was going to the doctor the following day I requested that she report for me that she drank very little water. Failure to drink plenty of water is a sin Nature does not pardon, 9 out of every 10 people with whom I come into contact seem to have taken the "Dry Law" literally. They do not like water and seldom drink it unless they have eaten something salty. They do not realize the importance of constantly flushing the system.

As I have never heard an adverse criticism along this line and read much in its favour, I am trying to impress upon each patient the necessity for drinking plenty of water. This simple habit adhered to, with colonic irrigations as required, should assure much health and many days of happiness." - Catharine Nablo, RN, in "The Trained Nurse and Hospital Review", Vol. 67, 1921.

Saline Solution in Colon Hydropathy

"In "Internal Secretions and the Principles of Medicine," Vol. II, p. 1369, 1903, I stated referring to sodium chloride: "when the supply is inadequate, all the functions are hampered, since it is the solvent of adren-oxidase (serum globulin).

By holding the katter in solution it insures its free circulation as a constituent of the plasma in all vessels down to the minutest capillary networks distributed to cellular elements, including those of the nervous system:

The axis-cylinders and other neuro-fibrils, the networks of neurons, their dendrites, etc. This also enables the adren-oxidase-laden plasma to transude freely through the capillary walls in order to reach the tissue-cells, i.e. to carry on the life process. The free osmotic properties which the lymph in the tissue-spaces also owes to sodium chloride

insures another important function, viz., that of sweeping away by the lymph-current of all wastes derived from the cell."

The fever referred to by Ishida thus finds a normal explanation: the defensive properties of the blood plasma and its cells being enhanced by the saline solution, an exacerbation of antitoxic activity, i.e., fever resulted, followed by improvement. In other words, what benefit was derived from this method, and I have seen improvement result in other cases from large Colonic Irrigation with saline solution, was due to the general destruction of the causative toxics and a temporary arrest of their injurious effects upon the cerebral cells.

To this must be added a similar action with improvement of osmosis in all tissues including the duct less glands, thus facilitating the liberation of the secretions of the latter. This means restoration of general metabolic activity besides the resumption of antitoxic power—salient functions, we have seen, of the thyroid and adrenals."- Dr Charles Eucharist de Medicis Sajous, MD in "The Internal Secretions and The Principles of Medicine", 1922.

The Physiological Effects of Rectal Irrigation

"Voronine (Wratsch, St. Petersburg, No.41, 1889) has examined the effects of rectal douches with cold and cool water. The water was at the temperature of 15° to 16° C, or of 22.5° to 23.5°C., and the duration of the injection was 1 ½ to 3 minutes.

The effects noted were:

1. The tactile sensibility, examined with the compass of Weber, was increased after a douche of the temperature of 22.5° to 23.5° C, the increase being greater if the irrigation lasted 1 ½ minutes; less, if 3 minutes. It was lessened after a colder douche of 15° to 16° C, the effect being more marked if the irrigation was prolonged.

2. The muscular force, determined by the dynamometer of Collin, was increased under the influence of cold rectal injection of 15° to 16° C, lasting 3 minutes.

3. The time necessary to cause the cutaneous impressions (symptom of Dujardin-Beaumetz), examined after the plan of Fleming, was longer when warm than when cold injections were employed.

4. The tendon reflexes were enfeebled, except that of the knee-cap, which was increased by cold injections.

5. The injections did not diminish intra-abdominal pressure, examined after the plan of R. Wagner.

6. The body temperature was lowered by all the douches.

7. Arterial pressure was lessened.

8. The pulse-tracing was modified.

These observations lead the author to the conclusion that the rectal douche is of service as an antiphlogistic, sedative, tonic, and excitant, and may be used in habitual constipation, haemorrhoids, spasm of the neck of the bladder, varicocele, vaginismus, prolapse of the rectum and uterus, and atony of the vagina." - in "Annual of the Universal Medical Sciences", 1891.

The Physiological Effects of Colon Irrigation

"The physiological effects of irrigation of the intestine have been carefully studied by Krull, Stadelmann, and Kemp. Krull held the cold enema to be a powerful hepatic stimulant, but Stadelmann concluded from his researches that its action is mechanical only, aiding the liver by removing from the intestine large quantities of decomposing stuffs, with swarming microbes and the ptomains and toxins

produced by them. This result seems rather surprising when one considers the powerful influence upon the mesenteric circulation, of cold water introduced into the intestine. Very powerful fluxion of the liver must be excited by this measure, and the reaction following must certainly be attended by decided increase in the activity of the portal circulation.

The introduction of very hot water into the colon increases blood pressure, improves and accelerates the heart action, and produces a marked effect upon renal secretion.

A temperature of 43°C to 48° C has been found much more effective in increasing renal secretion than a lower temperature. The author has often noted in cases of patients to whom the enema has been administered, the passage within a very short time of a large quantity of clear urine. This was observed and pointed out by the empirical Hydropaths more than 50 years ago.

Cold water produces a movement of fluid toward the intestine by the reaction which follows the application.

This fact renders the cold enema of value in the treatment of constipation due to excessive dryness of the faecal matters.

When used for relief of an acute inflammation, as in dysentery, the application must be moderate, prolonged, and continuous. The hot enema, on the other hand, stimulates absorption from the alimentary canal, and raises the blood pressure by filling the blood-vessels and by reflex stimulation of the heart. For most pronounced effects upon the heart and kidneys, the temperature should be 43°C to 48°C.

The author is confident that he has saved the lives of a number of persons suffering from renal suppression by the repeated employment of this simple measure during periods varying from 1 to 3 or 4 hours. He has used the hot enema for this purpose for more than twenty years. The effects obtained are much more prompt and in every way more satisfactory than those obtained from jaborandi (Pilocarpus pennatifolius) or any other diuretic drug.

The ordinary hot enema at 38°C to 40°C produces little

effect upon blood pressure, but has a marked diuretic effect. Cerebral congestion may result from the use of the warm water enema, as shown by the experiments of Schuller. According to M. Von Genersch it is possible by the employment of the coloclyster to introduce liquid into the small intestine, through which it may be rejected by the mouth.

Therapeutic Applications

The coloclyster affords marvelous relief in a class of patients, unfortunately by no means small in number, who, suffering from atony and dilatation of the colon, are always carrying about with them an enormous accumulation of fecal matters. The patients are variously classified as neurasthenics, hypochondriacs simple dyspeptics, etc., and are treated for biliousness, insomnia, exhaustion and a multitude of ailments, all of which conditions are the simple result of chronic autointoxication, and are promptly relieved by a cleansing bath administered to the large intestine.

The quantities of faecal matter removed in these cases is sometimes enormous; and not infrequently quantities of old putrefying faecal masses, semi-hardened by long retention, make their appearance after a free coloclyster has been thoroughly administered every day for a week or lore, showing that a single irrigation of the colon, no mater how thoroughgoing, is not sufficient to establish the fact of its thorough cleansing. In this class of cases the coloclyster should be administered daily for two or three weeks if need be, or as long as the patient complains of gaseous distention of the bowels and fetid flatulence.

Cold water stimulates and tones the bowel, whereas hot water is relaxing. The cold coloclyster may be used indefinitely without producing constipation, if the quantity of water employed is small. It acts as a sort of gymnastic trainer for the bowel, strengthening its muscular structures, and increasing the activity and energy of its controlling nerves and nerve centers. The author's attention was early called to the observations of Krull, already referred to, and he has for more than 20 years made use of the enema in

cases of jaundice, whether suspected to be due to gall-stones, or clearly due to infection of the liver and catarrh of the bile ducts in so-called "infectious jaundice."

The results have been almost uniformly excellent. Patients rarely fail to show marked improvement within a few days, and complete recovery has been secured in all cases of infectious jaundice. Careful regulation of the diet and other measures have been employed at the same time, but the coloclyster has been regarded as a measure of primary importance.

The temperature for the clyster should be 32° to 38°, the purpose being to flush the portal circulation while at the same time cleansing the alimentary canal. A much larger quantity of water can be introduced by this method than when a lower temperature is employed, and may be retained for a much longer time. A small cold enema (21°C, 500ml) should be injected as soon as the warm water is discharged, to counteract the depressing and relaxing effect." - Dr John Harvey Kellogg, MD in "Rational Hydrotherapy", 1918.

Chapter 22

The Diuretic Action of Rectal Irrigation

The Specific Action of Normal Saline Solution in the Production of Diuresis

"I have been invited to discuss the topic "Puerperal Eclampsia;" especially that portion of Dr. Stewart's paper referring to the diuretic effect of rectal irrigation. Of the general employment of water as a diuretic, it is unnecessary to speak.

It is my chief intention to call to your notice the fact that normal, or more correctly speaking, deci-normal, saline solution, has a specific effect on the kidney cells, in promoting diuresis and that this occurs, whether the solution is administered by infusion, by hypodermoclysis or by enteroclysis.

It occurs, even when such small quantities are employed that the attached mercurial manometer demonstrates no increase in arterial tension. It takes place even when the renal nerves are sundered. Foster's experiments regarding the diuretic effects of small infusions were duplicated by me in the physiological laboratory of the College of Physicians and Surgeons.

I furthermore experimented with hypodermoclysis arid with enteroclysis, and in regard to the latter, I will give a brief description of the method employed. On one side of a dog was placed a small vertical standard with a lever bearing a spatula at the end. The left ureter having been catheterized, drops of urine pass through a tube and fall upon the spatula. The impact of every drop is registered on the smoked paper of a kymograph, by means of a tambour, an ingenious mechano-pneumatic transmitter.

Each trace of a urine drop appears like an inverted V.

The urine from the catheterized right ureter was carefully

collected and measured, at stated intervals. The mercurial manometer, attached to the carotid artery, noted the heart impulses, on the revolving drum of a kymograph.

It was necessary to demonstrate the period when absorption from the intestine occurred and when the diuretic action began. One quart of a normal saline solution, plus 5 c.c. of a 5%, solution of ferrocyanide of potassium, were employed, through a recurrent irrigator; the returned fluid being caught and used over again.

The urine was tested every minute with chloride of iron.

In 20 minutes, the Prussian blue reaction appeared, thus demonstrating the average rapidity of absorption from the intestine and the period when renal secretion begins.

Furthermore, either a small enema, or an enteroclysis with the above solution at 37° to 38° C, would increase the number of drops of urine, registered on the kymograph, synochronously with the Prussian blue reaction to the iron test.

The manometric tracings showed no rise of pressure, the increased secretion being due to the specific action on the kidney cells. I report one unique case of oliguria (low output of urine); the average quantity of daily urine 400ml, enemata of 255ml of normal saline solution, in 85ml divided doses, hourly for 3 hours, the patient being unable to retain a larger quantity. Result, 40 ounces of urine in 8 hours, thus demonstrating the action of a small enema on the kidneys.

The second important effect produced by normal saline solution, to which I would direct your attention is, that it will diminish acute renal congestion (renal stasis).

Experimentally this fact has been demonstrated by me and reported at the New York Academy of Medicine, in a paper entitled "The Treatment of Scarlatinal Nephritis."

Clinically, it will diminish acute renal congestion by any of the three methods noted. We have frequently seen profuse diuresis and the gradual disappearance of albumin, casts and blood, the increase of urine commencing in 20 minutes (the interval of absorption) at all temperatures of the irrigating fluid. Cold irrigations, we would state, are only temporarily stimulant, then depressant and when

continued, on account of the depression and ultimate shock, decrease the quantity of the urine. We consider them dangerous in kidney conditions.

With the irrigating fluid at temperatures of 43° to 48° C there are two cycles of increase of the urine, while from the lower degrees of temperature there is but one. In the first instance there is an average point of maximum stimulation at the end of ten minutes, corresponding to the general increase in the circulation, and an earlier diuresis, in addition to the usual later diuresis from absorption of the fluid. In uremic conditions (high levels of urea in the blood) the high arterial tension is due to toxemia and the tension of the renal vessels is proporlionately greater than that of the general circulation.

Hot entcroclysis would aid in re-establishing the proper circulatory relations. It imparts a certain degree of warmth to the kidneys, by contiguity and, in addition, temporarily raises the temperature of the blood in the iliac vessels from 0.5° to 0.8° F.; in effect an active poultice. We have demonstrated this experimentally, as well as clinically.

The clinical experiences of Dr. William H. Thomson, Dr. Simon Baruch and others, as well as my own, establish the fact that even with high arterial tension, though there may be an evanescent increase due to the higher temperatures of the solution, yet irrigation at 43° to 48° C causes a profuse diuresis, diaphoresis and bowel action, followed by a rapid fall of pulse tension and a marked improvement in the condition of the patient. I would advocate continual entcroclysis at 43° C, gradually increasing to 48° C.

The advantages of the double current irrigator are that the temperature and quantity of the solution can be definitely regulated and that the continuous heat can be kept up.

As to Method

Employ from three to 45 litres at a sitting, from a 500ml to a 250ml being kept continuously in the bowels. It is well to empty the lower bowel by enema before the first irrigation.

The irrigations may be given every 2 to 3 hours, if

necessary, in severe cases, as in threatened suppression of urine. The amount of fluid absorbed during irrigation, varies, depending somewhat on whether previous bowel action has occurred and also on the circulatory conditions.

In any event, absorption of the fluid and stimulation of the kidneys occur. In a case of Dr. William H. Thomson's 13 quarts of normal saline solution were employed as a standard at each irrigation; the fluid was measured after irrigation and deducted from our standard quantity to show the amount absorbed.

In addition, to eliminate error, all material passed from the bowel within an hour after irrigation, was also deducted.

These tests were carried on every day for 3 months. This patient on one occasion absorbed 3 quarts, several times, 2 quarts and quite frequently 1 ½ quarts. The general average was about one quart out of 13.

In a second case the urine increased from 512ml daily to 3.550ml, after irrigation for 4 days, entcroclysis having been given 3 times daily.

In a case of oliguria with double pleurisy (inflammation of the membranes that surround the lungs and line the chest cavity) with effusion in a patient of Dr. William H. Thomson's, the daily quantity of urine being 340ml; after the employment and failure of various drugs, diuretics and diaphoretics; with rectal irrigation alone, in the space of 4 days, the urine increased to 40 ounces a day and in two weeks it rose to 70 ounces in the 24 hours and the effusion on both sides had disappeared.

In conclusion, let me say that I have endeavoured to impress upon you the great value of the procedure of scientific rectal irrigation as a diluent of the blood and a prompt producer of diuresis, diaphoresis and bowel action.

Furthermore, I fully endorse what Dr. Stewart has emphasized, the fact that you cannot afford to wait with folded hands for any slow or uncertain results in such a disease as puerperal eclampsia, when the maternal life chances are only about one to two and the child's risk is about even.

With frequent small venesections combined, with

properly administered irrigations you may turn the scale in your patient's favour in 30 minutes; 10 minutes for the venesection and 20 minutes for diuresis to follow the entcroclysis. In addition, it would suggest itself to us that an infusion of normal saline solution at 48° C, the correct temperature as demonstrated by Dr. Dawbarn, given at the site of the venesection, might prove of the greatest value.

The administration of hypodermoclysis is also a rational treatment." - Dr Robert Coleman Kemp, MD, New York, Attending Physician Department of Gastrointestinal Diseases, St. Bartholomew's Clinic; Associate Professor of Internal Medicine, N.Y. School of Clinical Medicine in "Medical News", Vol.82, 1903.

The Value of Rectal and Colon Irrigation in Nephritis Some Physiologic Experiments

"In the selection of this subject, I am influenced by the following factors: First, that in a series of physiologic experiments, carefully performed, during a period extending over the past 7 years, I have succeeded in demonstrating several important effects produced on the kidneys by Intestinal Irrigation; and, second, in the clinical application of these experiments, I have secured unquestionably the proofs of the correctness of my deductions; and, what is more important, an undoubted benefit to my patients.

In certain conditions in nephritis (inflammation of the kidneys), I consider intestinal irrigation of great value, and believe it to be an important adjunct to other methods of treatment; thus, for example, in oliguria; in acute congestion of the kidneys; in uremia; and in acute suppression of urine.

The diuretic effects of enemas of water, given to be retained and absorbed, have been known to the profession for a considerable number of years. Thus, for example in the year 1881, a rectal obturator was devised by Dr. Prince, to retain enemas of plain water for absorption in uremia, shock, and sepsis. Somewhat later several others reported

the value of rectal enemas of plain hot water in uremia, notably among these Dr. H.E. Forest, in the New York Medical Record, 19 Sept., 1891.

The employment of normal salt solution by the method of recurrent (continuous) irrigation. In the New York Medical Record, 7 December 1895, I reported a case of acute uremic suppression treated with irrigation of the bowel with normal salt solution. I believe this to have been one of the first cases, if not the first reported of uremia so treated.

But that the principle of irrigation, had been so employed with normal salt solution in uremia several years previous. There are certain scientific facts to which I would direct attention. It is my first object to call to your notice that normal saline solution has a specific effect on the kidney cells, in promoting diuresis, and that this occurs, whether the solution is administered by infusion, by hypodermoclysis or by enteroclysis.

I shall later report cases of oliguria in which the patients were successfully treated by continuous irrigation. The temperature of the solution for irrigation was found to be of paramount importance. With the irrigating fluid at temperatures of 43° to 48 C there are two cycles of increase of the urine, while from the lower degrees of temperatures there is but one, at the end of 20 minutes from absorption.

In the first instance there is an average point of maximum stimulation at the end of 10 minutes, corresponding to the general increase in the circulation as shown by the maximum high tension in the pulse tracings and an earlier diuresis; in addition to the usual later diuresis from absorption of the fluid. In uremic conditions the high arterial tension is due to toxemia, and the tension of the renal vessels is proportionately greater than that of the general circulation. In extreme tension, especially in full-blooded subjects, previous venesection might be indicated. In this type, with pulmonary edema, the best results are thus secured.

Acute Renal Congestion

The second important effect produced by normal saline

solution, to which I would direct your attention, is that it will diminish acute renal congestion. Experimentally this fact has been demonstrated by me, and reported at the New York Academy of Medicine, in a paper entitled "The Treatment of Scarlatinal Nephritis."

Thus, artificial renal congestion has been produced by the subcutaneous injection of enormous doses of antistreptococcus serum, or normal horse serum. This has been relieved almost immediately by injections of normal saline solution. The kidney conditions were examined by a skilled microscopist. Clinically, it will diminish acute renal congestion by any of the three methods noted, infusion, hypodermoclysis, or enteroclysis.

We have frequendy seen profuse diuresis and the gradual disappearance of all albumin, casts, and blood, and the increase of urine commencing even in 20 minutes (the interval of absorption) in the most favourable cases.

An enteroclysis at all temperatures of the irrigating fluid has a diuretic effect. Cold irrigations, we would state, however, are only temporarily stimulant, then depressant and, when continued, on account of the depression and ultimate shock, decrease the quantity of the urine. I consider them dangerous when the kidneys are affected.

The most satisfactory result is, there fore, secured at irrigation with a temperature of 43 to 48 C, preferably the latter. Having discussed the experimental portion of my paper, I should now like to call to your attention what I believe to be the most scientific method of intestinal irrigation.

The simple enema is excellent under many conditions, but it possesses the disadvantages that frequently it cannot be retained, and also that it soon cools off and the effect of the heat is rapidly lost; though, of course, we secure the benefit derived from its absorption.

The ideal instrument I believe to be a continuous or recurrent irrigator. The advantages of the double irrigator are that the temperature and quantity of the solution can be definitely regulated, and that the continuous heat can be kept up. In the adult, this instrument, combined with the

elevation of the hips or foot of the bed, is efficacious for a high irrigation. Bodenhamer was the inventor of the first recurrent irrigator and there are many types on the market.

Position of the Patient: I often employ the Sims' position, or patient lying on the side, with the buttocks extending over the edge of the bed, covered with a blanket and a pail directly beneath. On some occasions, if there is pulmonary edema due to oliguria, irrigation can be performed with the patient in the oblique, or nearly sitting upright position in bed. It is remarkable the amount of absorption that occurs in the rectum alone.

As a rule, the best method is as follows: Place the patient in the dorsal position - foot of bed slightly elevated. Discard the bedpan and protect the bed by rubber sheeting. Attach the tube of the fountain syringe to the central tube of the irrigator. The syringe should be elevated 4 to 6 feet above the patient. Employ from 11 to 45 litres at 46° to 48 C, at a sitting, from a pint to a quart being kept continuously in the bowels. It is well to empty the lower bowel by enema before the first irrigation. If this is impossible, the irrigation itself will produce the result desired.

The irrigations may be given every 2 to 3 hours, if necessary, in severe cases, as in threatened suppression of urine. The amount of fluid absorbed during irrigation varies, depending somewhat on whether previous bowel action has occurred and also on the circulatory conditions.

In any event, absorption of the fluid and stimulation of the kidneys result. In a case of Dr. William H. Thomson's, 13 quarts of normal saline solution were employed as a standard at each irrigation; the fluid was measured after irrigation, and deducted from our standard quantity to show the amount absorbed.

In addition, to eliminate error, all material passed from the bowel within an hour after irrigation, was also deducted. These tests were carried on every day for 3 months. This patient on one occasion absorbed 3 quarts, several times 2 quarts, and quite frequently one and a half quarts. The general average was about one quart out of 13.

In a second case, the urine increased from 500ml daily to

3.550ml, after irrigation for 4 days, enteroclysis having been given 3 times daily. In a case of oliguria with double pleurisy, with effusion, in a patient of Dr. William H. Thomson's, the daily quantity of urine being 340ml, after the employment and failure of various drugs (diuretics and diaphoretics), as a result of rectal irrigation alone, in the space of four days, the urine in creased to 1.100ml a day, and in 2 weeks it rose to 2 litres in the 24 hours and the effusion on both sides had disappeared. In a paper by Dr. Douglas H. Stewart, entitled "Puerperal Eclampsia, its Surgical Treatment", read before the West End Medical Society, 1 November 1902, the value of rectal irrigation, combined with repeated small venesections, was thoroughly discussed.

His article was published in the New York Medical Record. My own paper read at the same meeting, entitled "The Diuretic Action of Rectal Irrigation, the Specific Action of Normal Saline Solution in the Production of Diuresis", embraced a discussion of this important feature in Dr. Stewart's paper. My article was published in The Medical News, 3 January 1903.

In a paper on "Uremia." read before the Society of the Greater New York, at the Academy of Medicine, Dr. William H. Thomson called attention to the fact that in chronic nephritis with polyuria, when there is a sudden development of oliguria, rectal irrigation as a diuretic is one of our most valuable adjuncts.

He furthermore advocates its employment in scarlatinal nephritis.

As a matter of interest, I would refer to a paper of my own, read before the New York Academy of Medicine, 3 April 1900 entitled "The Treatment of Scarlatinal Nephritis", and published in Pediatrics, in a series of articles in the October and November issues in 1900. I can report many cases of benefit derived from rectal and colon irrigation in uremia, suppression of urine, acute congestion of the kidneys, and in oliguria, also in various dropsical conditions resulting from the latter; the value of the method to further elimination in various toxemias and sepsis is also self-

evident.

If a more frequent trial of this method results from these remarks, I shall feel I am well repaid." - Dr Robert Coleman Kemp, MD, in "American Medicine", Nov. 1906.

Modern Methods of Intestinal Irrigation

"The author advocates the I employment of the rectal irrigator with the return-flow tube, as being the ideal method of carrying out intestinal irrigation. He declares that, if proper attention be given to the anatomical conditions, that the former method has the advantage that the quantity and temperature of the fluid are both under the control of the operator, since they can be regulated by proper manipulation of the inflow and outflow tubes.

He gives detailed technique for both low and high irrigation by the method recommended, and describes the preparation of, and indications for, various solutions for use in irrigation. His article is a most scientific and practical exposition of the whole subject of intestinal irrigation, from the clinical standpoint.

Advantages of Method

Before we enter into a description of our latest instruments and technique, we believe it to be only fair to our readers to explain as clearly and succinctly as possible the reasons for our belief that enteroclysis with the return flow tube (double current) is the most scientific as well as the most practical method of which we have present knowledge. They are as follows: The temperature can be kept even and constant, and the fluid does not cool, since fresh, hot fluid is continually entering to replace the cooler, which passes out. Its value, therefore, in shock and allied conditions, is evident.

The temperature as well as the quantity of the fluid are both under the control of the operator, since they can be regulated by proper manipulation of the inflow and outflow

tubes. The labor is placed upon the operator and not upon the patient, and the material can be washed out, and there is no straining to overcome the resistance of the sphincter. Thus if a feeling of discomfort or a desire to evacuate occur, immediate relief can be secured by shutting the inflow and allowing free out flow. The straining of self-evacuation may thus be avoided if so desired, and mere mechanical cleansing of the bowel be employed. A continuous irrigation may be given for a long period; frequently we have employed an hour or more.

Tympanites of the most obstinate type is relieved best of all by this method, the return flow carries off the gas by suction, on the principle of the Sprengel's air pump. With the ordinary enema the gas frequently collects in the intestine behind the injection like an air buffer and it is often impossible to exert sufficient force to expel gas and enema. The continuous irrigation can be given, even if there is complete relaxation of the sphincter (incontinence) by passing the tube or tubes through a perineal pad, and exerting firm pressure thereon.

The long-continued heat and even temperature rendered possible by this method, exerts a much better effect for stimulation. The same holds true as regards the effects on the genito-urinary system. In intestinal paralysis, especially post-operatives, etc., we obtain better results as a stimulant to peristalsis of the intestine. Even in diarrhea, etc., the continuous enteroclysis seems to clear out the intestines with greater speed, by causing the small intestine to empty itself more rapidly into the large intestine, and the reflex effect caused by the continuous flow seems more active.

Technique

Height of douche bag, 90 cm to 1.5 cm above the patient.

Precautions before insertion of the tube:

1. Allow the irrigating fluid to flow from the tube, so as to force out all air, and then check the flow.

2. As the tip of the instrument passes through the sphincter into the bowel, it is well to start the flow, so force the mucous membrane away from the irrigator and fenestrae. Also the entrance of the tube is not interfered with by the resistance of the mucous membrane.

Insertion of the instrument: The tube should be well lubricated and inserted with a gentle rotary movement, the tip directed slightly backward toward the sacrum and not forced in. If there is pain or difficulty in inserting, it is good practice to make a rectal examination to see if there is any obstruction, thus as an enlarged prostate, uterine, fibroid, etc. Withdrawal of the instrument.

Withdraw it gently, and while doing so, rotate it slightly first in one direction and then in the other. At this point I shall merely refer to certain experiments which I conducted in the Physiological Laboratory of the College of Physicians and Surgeons (Columbia University). A full description of the experiments with enteroclysis will be found in Vol. III (new edition), "Reference Handbook of the Medical Sciences," under Enteroclysis; in my manual "Enteroclysis, Hypodermoclysis and Infusion," and in the Medical News, 3 January 1903, entitled "The Diuretic Action of Rectal Irrigation. The Specific Action of Normal Saline Solution in the Production of Diuresis."

It was demonstrated that in shock, or for its prevention, a temperature of 43° to 48° C of the normal saline solution should be employed in enteroclysis and that the same temperature as a diuretic is preferable in oliguria, sepsis, etc.; also that irrigation with old solutions temporarily stimulate, but later depress. Intestinal absorption with excretion from the kidneys occurs in 20 minutes.

Quantity, Temperature of the Solutions and Indications:

In colitis, dysentery, typhoid, intestinal dyspepsia, the various forms of diarrhea, constipation, fecal impaction, a quantity equal to from 6 ounces to a pint and a half, or a quart, may be allowed to flow into the bowel before escape

is permitted. Enteroclysis may be employed once or twice daily and the total amount at each sitting may be from several quarts to several gallons. As a rule, the irrigation should be continued until the return flow is clear. In sthenic cases, as in dysentery, or gastro-enteritis in infants, etc., irrigation at 32° to 27° C may be cautiously employed to aid in the reduction of temperature.

Usually the temperature of the irrigating fluid should be from 38° to 40° C. For the spasm of renal, biliary or intestinal colic a temperature of 43° to 48° F. is most efficacious, from half a pint to a quart being kept continuously in the bowel. In intestinal hemorrhage large enemata of saline solution at 43° to 48° C, or cold injections at 16° to 5° C, cautiously employed, are of value.

In all conditions in which it is desirable to stimulate the circulation, as in shock, to increase renal secretion, or to eliminate toxins through the promotion of diuresis, the quantity of the solution to be kept continuously in the bowel should average from a pint to a quart, and the irrigation should be kept up from 30 minutes to 1 hour. Normal saline solution at 6° to 9° C should be employed. In sepsis due to any cause, as from peritonitis, septic endocarditis, cholera, typhoid, diphtheria, etc., in malarial poisoning to check or abort a chill, and in renal congestion, or in various dropsical conditions due to oliguria, or in acute suppression of urine, the same method is of value.

Enteroclysis is also of value in gynecology; thus, for example, in single women, as a substitute for the vaginal douche, the above method is of value. It is useful also to promote pelvic exudation, in ovaritis, salpingitis, leucorrhea, shock, etc. In genito-urinary and in rectal affections, such as in inflammation of the prostate, bladder and seminal vesicles; retention of urine, spasmodic stricture of the urethra, acute or chronic urethritis, hemorrhoids, etc., enteroclysis, especially with normal saline solution at 43° to 48° C, has often proven useful. In intestinal paresis or in obstinate constipation, enteroclysis, combined with electricity, is of value. The negative pole should be attached to the binding pole on the central metal tube, and the

positive pole may be placed just below the ensiform process of the sternum.

Solutions for Use

Solutions to Employ: Flaxseed tea, made thin and oily, in intestinal catarrhs, especially if accompanied by constipation; it also aids absorption of pelvic exudates. Flaxseed 1 drachm to water, 500ml or 250ml.

Normal Saline Solution: One drachm salt to 1 pint of waer, useful for cleansing purposes; especially safe for children; useful as a circulatory stimulant, diuretic and to eliminate toxins. Oil of pepper mint or oil of cinnamon (mx x No. xv) to the pint, may be added to the normal saline solution for cleansing purposes (Wm. H. Thomson). Solutions such as Listerine, Glycothymoline, to the quart of water, are of value as injections in catarrhal conditions." - Dr Robert Coleman Kemp, MD, Consulting Physician Gastrointestinal Diseases, to the Manhattan State Hospital, West, Ward's Island; Attending Physician Department of Gastrointestinal Diseases, St. Bartholomew's Clinic; Visiting Physician to the Red Cross Hospital; Associate Professor of Medicine and Hydrotherapeutics, New York School of Clinical Medicine, in "The Medical Brief", Vol. 38, Dec. 1910.

> *"Dr. J. Wesley Bovee read a paper on The Use and Abuse of Normal Salt-solution. He said that normal salt-solution (0.6%) is a powerful stimulant to the cardiac heart-nerves, skin, kidneys, and intestines. It may be administered through an artery (dangerous), subcutaneously (most generally useful), intravenously (often slow on account of the difficulty of finding a vein and introducing a cannula), by intraperitoneal injection), and by enema. It is used in collapse and exhaustion in medicine, but more frequently in surgery, to prevent and to reduce shock in severe hemorrhage, for*

irrigation and as "lavage of the blood" in sepsis. It is contraindicated in hemophilia, dyscrasias, deficient fibrin, etc., and in certain organic diseases of the lungs, kidneys, liver, and arterial tree. The solution should be sterile and hot, the surface of the part and instrument sterile, and not more than half a litre should be injected into the tissues through one puncture and at the rate of an ounce a minute. Dr. L. McL. Tiffany, of Baltimore, advocated in profound sepsis phlebotomy and intravenous injection of a normal saline solution, preferring this method even when the abdomen is opened. Dr. Howard A. Kelly, of Baltimore, introduces a quart of the solution into the rectum after abdominal operations. This lessens thirst and promotes the activity of the kidneys. In case of hemorrhage he injects the solution under the breast. He does not use the intravenous method. Dr. L. S. McMurtry, of Louisville, spoke of the necessity of the sohition, needles and apparatus being sterile and of the difficulty of finding a vein in an exsanguinated patient. In the latter case the larger trunks should be sought for. Dr. Geo. A. Baxter, of Chattanooga, was enabled to complete a hip joint amputation after a rectal injection of a saline solution ; without which it could not have been done. Dr. G. A. Brown, of Birmingham, had used the saline solution subcutaneously in pneumonia and cholera infantum without good results." - in "The Philadelphia Medical Journal", 1898.

Chapter 23

The Treatment of Muco-Membranous Colitis

"The study of muco-membranous colitis has been largely extended of late years owing to the publication of numerous works, principally in France (Potain, Dieulafoy, Gaston Lyon, A. Mathieu, de Langenhagen, Froussard, and others). Today the description of this disease to be really clear and complete needs a development that far exceeds the space available in a medical journal.

Hence I am obliged to limit myself in this paper to presenting to the English medical profession the aspect of the question exclusively in its relation to the treatment of the disease, leaving to the authors mentioned above the history, symptomatology, complications, etiology, and pathogeny of the disease. It is, however, necessary that before I begin I should present a succinct clinical picture and give in a few short paragraphs my personal ideas which may be found in a more complete form in the little book that I published in London last year (Muco-membranous Entero-colitis, 1903).

Muco-membranous colitis is a chronic catarrhal inflammation of the mucous membrane of the large bowel. It is a constitutional and diathetic disease, neither parasitic nor contagious. The soil in which the disease takes root and spreads is a constitution both gouty and neurotic, i.e., the neuro-arthritic constitution that is so common to-day and so largely increased and developed by the conditions of modern life, the repetition of hygienic errors, heredity, overstrain, and the heated atmospheres of large cities.

From a symptomatic point of view muco-membranous colitis is essentially characterised by very pronounced intestinal atony and by a more or less abundant secretion of a mucoid or membranous matter. If the mucus is expelled as it forms it appears in the form of glairy threads analogous to

the white or yellow of an egg and occasionally tinged with blood; if, on the contrary, it remains in the folds of the intestine it dries up and shows itself as a membraniform production of varying aspects (ribbons resembling segments of taenia, vermicelli, macaroni, and the like).

The intestinal atony manifests itself by obstinate constipation, generally anterior to the signs of catarrh, and it is precisely the prolonged constipation which in the end brings about the mechanical irritation of the mucous membrane, its superficial inflammation, and the hyper-secretion of its glands. Nevertheless, alternations of constipation with diarrhoea are often found and exceptionally permanent diarrhoea.

To these two fundamental elements of the disease may be added a third which is but seldom absent, and that is pain.

I have classified this as follows: either habitual pain with the sensation of a weight and a dull discomfort, generally seated in the iliac fossa and making itself most generally felt four or five hours after meals, or pain in paroxysms, very violent attacks which last some days and oblige the patient to take to bed and which are often taken for an attack of hepatic colic or of intestinal stoppage.

The pains correspond to a state of spasm of the large bowel, more or less violent and more or less generalised. Objectively we regularly see in patients suffering from colitis a flabbiness and depressibility of the abdominal wall and a remarkable state of atony and laxity of certain segments of the large bowel, particularly of the caecum, which feels like a more or less swollen sausage. On the other hand, the sigmoid flexure is generally contracted and forms a sort of string. Very often there is a general bearing down of the bowel or enteroptosis. Functional troubles of the stomach and the liver (flatulence, dilatation, hypochlorhydria or hyperchlorhydria, oligocholia or polycholia) accompany the intestinal symptoms and sometimes obscure them to such a degree that medical men not familiar with colitis see in their patients simple dyspeptics. Intestinal lithiasis is a frequent complication and shows itself by the presence of sand in the faeces. The question of the relation of appendicitis to muco-

membranous colitis is too important and too much a subject of controversy for me to treat of it briefly; the reader will find it dealt with in my book.

The general condition is ordinarily much altered; there is a marked loss of flesh. With women troubles of the uterus or of the uterine appendages often complicate the situation. The nervous condition is always accentuated; there are various reflex phenomena (cardiac intermittences, palpitations, dizziness, attacks of dyspnoea or of suffocation, fainting fits, and the like).

There is a general weakening of the nervous system, even to the point of most pronounced neurasthenia, for it must be remembered that if these patients are generally of neurotic origin the colitis, once it has a hold on them, reinforces and exalts the previous neuropathic phenomena. Such is, in outline, the sketch of this tedious disease, the treatment of which I now proceed to consider in detail.

There are some fundamental precepts which dominate the therapeutics of the disease. The practitioner must make sure that the patients have a diet suited to the state of their intestine. He should be most careful to keep the bowel open and to procure by appropriate artificial means the evacuation of the residuum that the bowel, owing to its atony, is incapable of expelling by itself. He should also attempt to modify the intestinal catarrh and, to a certain degree, the fundamental neuro-arthritic diathesis.

There are 3 principal therapeutical means corresponding to these three indications; they are rather of a hygienic than of a medical character, and I now proceed to examine them successively.

They are:

1. The Alimentary regimen
2. The Washing out of the intestine
3. The Hydro-mineral treatment

1. The question of diet is here of supreme importance:

The problem consists in nourishing the patient in such a way that the excrement shall neither be abundant nor irritating. The food should be chosen from amongst the following aliments: milk, meat soups (chicken and other) with every particle of fat taken off, beef-juice, porridge made of barley, oatmeal, maize, ground rice, arrowroot, raccahout (milk with cocoa, vanilla and potato flour), etc...; eggs, boiled, scrambled, or in custards, but neither fried nor as omelets (as fat is to be avoided); white light fish, i.e., sea fish, finely minced, very lean roast and boiled mutton or beef or veal or chicken; and vegetables.

As a rule it will be found best to give only dry pulse vegetables, such as dry haricot beans, peas, and lentils; mashed potatoes may also be given. Alcohol acts like a poison on the intestinal canal and is always harmful. The best drink is pure, fresh, spring water. All hashes, stews, rich gravies, sauces, and pastry of every kind should be forbidden. In serious or inveterate cases greater severity still is needful. Patients should in these cases take nothing but milk (if tolerated), light cereal porridges, eggs, beef-juice, and some times a very little finely minced raw meat.

In cases where milk is not digested warm infusions, such as those of camomile and lime tree bark may be given. They are very comforting in cases of dilatation of the stomach or of dyspepsia. Bread should be strictly forbidden in these cases or should only be given in very small quantities in the form of rusks or dry breakfast biscuits.

2. The washing out of the intestine:

The means which I consider the least harmful to the patient for resisting the intestinal atony, independently of the special modification which it exercises on the mucous membrane, is the methodical and carefully calculated irrigation of the large bowel, an irrigation that is to be as complete as it possibly can be. I am not unaware that in recommending this means I am tilting at a prejudice against the use of enemas that is widely spread in England. But I must repeat, the bathing of the intestine, as I understand it,

is not a simple "enema" destined only to assure the evacuation of the rectum. If this were the only object in view one could let each person follow his personal preference and adopt one of the numerous well known laxatives, even though they might have the disadvantage of fatiguing the stomach, of sometimes causing colics, and of losing their effect in the end.

Of these laxatives the one that I prefer is castor oil in small doses (from one to two teaspoonfuls); then there are cascara sagrada, belladonna, rhubarb, and magnesia. Abdominal massage can also be employed and electrical applications, but we must remember that these last have often only a momentary effect and that if the patient is obliged to use them repeatedly they become too expensive to be within the reach of everybody.

As regards the enemas of olive oil (from 50 to 200 grammes taken at night when going to bed and retained the entire night), they are generally insufficient in themselves to empty the bowel and in addition a water enema is obliged to be given the next morning. But it cannot be too often repeated, the expulsion of the faecal matters is not the sole object of the intestinal irrigation, which has for its aim and effective result the cleaning out, of the intestine by ridding it of the mucus and the false membranes which stay in its folds and adhere to its walls. This irrigation has even the effect (by bringing in contact with the intestinal walls a warm liquid endowed, when the irrigation is done at certain thermal resorts, with special properties that either reduce the congestion or, on the other hand, stimulate the muscular tissue) of re-awakening the contractibility of these walls, of modifying the mucous membrane, and of influencing the secretion of the glands, in one word, of doing not merelya mechanical work but a modifying work that is really curative and therapeutic.

The intestinal bathing should there fore be considered as a real internal dressing of the mucous membrane and this explains why it is suitable not only in the cases of colitis with constipation but also in those cases where there are alternations of constipation and of diarrhoea or in cases of

chronic diarrhoea. It goes without saying that I only allude to intestinal bathing correctly performed and that I have no wish to take up the cudgels for these bathings badly done—e.g., with too strong a pressure or an exaggerated quantity of liquid. As far as that goes the technique of these irrigations is simple enough and after the first few times the patient can easily acquire habitude to them. In the most ordinary case—that of muco-membranous enteritis in a chronic form, without any great contraction and with obstinate constipation and an abundant glairy secretion, this is how I proceed.

The irrigation is given by means of a fountain-injector. The injector should be placed at a very slight height above the bed on which the patient lies, at the most at from 25 to 60 centimetres, so that the pressure is extremely low, and the tap should be only slightly opened, so that a very slow discharge of the liquid (about ten minutes for a quart) may be assured. The water used for the irrigation should be water previously boiled, to which can be added or not some softening substance, such as linseed, marsh-mallow root, or some medicated substance, such as ichthyol (fish oil), etc...

The water should be of a temperature varying from 35° to 48° C. A temperature of about 35°C. is best suited to cases in which there is a tendency to spasm and to "resistance" on the part of the bowel; the temperatures of 45° C. and above are most useful when there is complete atony without spasm and where the physician is desirous of stimulating the muscular tissue and re-awakening the contractibility. The quantity of water to be injected varies from one quart or even less to one and a half quarts, according to the patient's power of tolerating it and the extent to which he can accustom him self to it. The patient should be lying on his back at the beginning of the operation, should then turn slightly on his right side, and should finish by lying entirely on his right hip so that the liquid penetrates to the furthest parts of the colon. For it is these furthest parts, the end of the transverse colon, the corner between the ascending and the transverse colon, and the caecum, that the faecal matters choose for accumulating in; and there, most often, is to be

found the principal seat of the catarrhal inflammation and the most active centre for the production of the mucoid matter or membranes. Hence it is there that the cleaning process should act. It is for this reason that I always recommend if possible the arriving by degrees at large quantities of liquid, but I only increase the quantity when the patient is well accustomed to the previous dose. On principle I begin with 825ml and augment progressively up to 1.7 litres or at the maximum 2 litres at a time.

As a general rule I prefer that the patients should have 2 consecutive irrigations, the first destined to rid the bowel of its faecal contents and the second to carry away the mucus and act on the mucous membrane previously cleaned. The first irrigation should be expelled after 1 or 2 minutes and the second after nine or ten minutes if possible. But in many cases when the patient can obtain a stool before the operation (and this is an attempt always to be recommended) or when there is only a small quantity of mucus to be evacuated, or when the fatigue that ensues after the irrigation is too much accentuated, I content myself with 1 irrigation. For the same reasons, instead of one séance every day, the operation may be performed only 2 or 3 times a week. All this is an affair of tact, of degree, and of individual indications. It can not be too much insisted on that here I only cite the average, that the prescription for the irrigation is not universally applicable, and that the different conditions of pressure, of temperature, of quantity, and even of the nature of the liquid injected should vary notably, according to the particular form and degree of intestinal atony, according to the tolerance of the patient, according to his neurotic condition, and according to the action which the physician wishes to obtain : simple evacuation of the faecal matter, antiseptic cleaning of the intestinal canal, awakening of the contractibility and of the energy of the muscular fibre, calming of the spasms and of the contraction, reducing of the pain, and modification of the catarrhal condition of the mucous membrane.

Objections have, however, been made to the method of intestinal irrigation but I consider the greater part of these

criticisms much exaggerated. Still, as they have a specious appearance which has appealed to a certain number of medical men it is necessary to examine them in detail. I do not pretend that the method I recommend is perfect; I simply state that its disadvantages are in a minority compared to its advantages.

I willingly recognise the fact that a certain number of persons are incapable of supporting the large intestinal irrigations which provoke, in their case, various troubles, very violent pains, nausea and vomiting, cold sweatings, sometimes even cardiac accidents and a state of syncope. But I must add, at once, that the number of these exceptional patients is extremely limited (hardly 3% in a total of several thousands). When the physician does meet with such cases it is evident that he must do without the irrigation. But this is no reason for depriving the large majority of other patients who are capable of supporting them.

Treating these exceptional cases apart it has been said that the washings out, even when they are tolerated, have the disadvantage of dilating the bowel, of provoking spasm and contraction, of increasing the irritation of the mucous membrane and the production of glairy matters and of keeping up, and even adding to, the state of intestinal atony by not allowing the patients to do without them. There are almost as many errors and exaggerations in these propositions as there are words, for it is very rare to find spasms and contractions of the bowel provoked by the irrigation.

The contracting and shrinking of certain segments of the intestine, like the atonic dilatation of certain others, are normal phenomena in muco-membranous colitis, and they are seen just as much among the patients who do not use the irrigations as among those who do, which proves that it is an effect of the disease itself and not of the treatment applied. If, nevertheless, the irrigations do seem with some persons to augment the spasm and provoke painful phenomena, that is because more often than not they are given with exaggerated pressure or with a too great quantity of liquid. Given correctly, as I indicated above, they hardly

ever provoke any noticeable pain. Still, one does sometimes observe a contraction, limited to the sigmoid flexure, and entirely due to the introduction of the cannula and to the local reaction it causes. A good means of avoiding this partial spasm consists in smearing the cannula with a pomade with belladonna in it instead of simple vaseline.

Just consider, how could the intestine be "dilated," that is to say, how could its walls be forced by the introduction at low pressure of a liquid which never completely fills the cavity which receives it? Take a pig's bladder and fill it by degrees with water. So long as this bladder is not swollen, until the liquid presses on its sides they will not be distended, nor suffer elongation, nor forced dilatation.

Well, to fill the large bowel so as to distend it from the rectum to the ileo-caecal valve we should need at least, according to the experiments made on dead bodies and living ones, from 3.4 litres to 4.5 litres of liquid, and, as we have seen, we never inject more than 2 litres at a time. Can it be admitted that this very moderate quantity of liquid which as it increases spreads itself without obstacle into the furthest portions of the intestinal tube can distend its walls, even allowing for the distension produced by the gases, which themselves, perhaps, partly dissolve in the liquid introduced, partly get through it, and are expelled with the residue of the irrigation?

Again, it is an absolute error to pretend that the washings out irritate the intestinal mucous membrane and increase the catarrh. This might be so if astringent or caustic solutions were used, but performed with water charged with softening substances or with mineral water of sedative properties they produce no irritation at all. The best proof is that the irrigations never cause an expulsion of glairy and mucous matters from persons who do not habitually expel them.

This is an experiment that I have tried several times on healthy persons or patients suffering from simple constipation without accompanying colitis and always with the same negative result. We may conclude, then, if we find among patients suffering from colitis a larger quantity of

mucous matter after the irrigations than at other times, that the mucus accumulated in the intestine, remaining there for some time and causing by its presence an intensification of inflammation, is expelled in larger quantity by the effect of the irrigation, for the well-being of the patient; they are already old productions and not new ones, which on reflection it will be seen could not form up instantaneously and suddenly.

The last reproach made against the irrigation, that of keeping up and sometimes augmenting the intestinal atony, contains more truth than the preceding ones. But I think this disadvantage makes itself but rarely felt, seeing that with the greater number of patients the intestinal energy was already lost when the treatment by irrigation was started and that these patients never went spontaneously to stool and only obtained evacuation of the bowel by a daily dose of cascara or castor oil.

Consequently, with such patients the intestinal atony has not been increased by irrigation, seeing that it was at its worst before. Even supposing that some patients who had not yet lost all intestinal strength and who still had some spontaneous stools before the treatment by irrigation had while curing the catarrh (and all the inconveniences it causes, pains, nervous reflex phenomena, etc...) abolished what still remained of the function of defecation, that is a disadvantage very small compared to the advantages otherwise procured.

I therefore conclude that the reasonable and persevering employment of intestinal irrigation is the chosen method for the treatment of colitis and that the greater number of the objections formulated against it are imaginary and without value, the only real one applying to a very limited number of patients. The total of cases in which the irrigations are useless or cause slight inconvenience certainly does not exceed 20%, according to my statistics; and it seems to me the study of medicine should in strict duty concern itself with a therapeutical process which can count success in the proportion of 4/5.

3. The third method of treatment of colitis is a hydro-mineral cure judiciously chosen.

As far as my knowledge goes there does not exist in England a suitable resort for treating this disease. In France two resorts are now in vogue; Plombières and Châtelguyon. But their composition is widely different. Châtelguyon possesses temperate springs (27°C.) with bicarbonate and salt, slightly laxative and tonic. Plombières, on the other hand, possesses hypo-thermal springs (up to 72°C., average 50°) with bicarbonate and silicate of sodium, slightly arsenical.

The waters were known to antiquity in the treatment of rheumatic affections and of diarrhoea of an arthritic or tropical origin; their employment for colitis is more recent in the same way as the knowledge of the disease itself. The consumption of the Plombières water by drinking produces neither constipation nor diarrhoea, still after the cure a diminution of constipation is generally noticed. In addition these waters are essentially sedative to the nervous system and reduce the congestion of the intestinal mucous membrane. It is to this triple property (general anti-rheumatic action, nervous sedative, and reduction of local congestion) that they owe their growing success in colitis; a disease, it should not be forgotten, of an essentially nervous and arthritic origin.

Plombières, therefore, attacks the origin of the harm by modifying the constitution of the subject.

Châtelguyon, on the contrary, is more efficacious against the symptom constipation. That is why I advise sending above all to Châtelguyon patients who are suffering from simple constipation without intestinal catarrh or with very little of it. Whenever the catarrh is intense and when the painful, neurotic, or neurasthenic phenomena are pronounced Plombières is preferable. When it is a question of the diarrhoeic forms hesitation is not permissible, it is Plombières that should be chosen.

One of the great advantages of Plombières on which I must again insist is the perfection of the apparatus for intestinal irrigation. This apparatus was established 6 years

ago under my instructions. It consists of a bed with a mattress pierced by a basin with a hole for the escape of the faecal matter and an irrigator of elongated form and of sufficiently large capacity in direct communication with the reservoirs of the thermal water. This irrigator is fitted at its inferior extremity with an India rubber pipe to which can be adapted the patient's cannulas and is moveable the length of a graduated scale which serves to regulate the pressure. On its exterior it has a thermometer and a water gauge graduated in quarts, half quarts, and quarter quarts.

All the conditions of temperature, of pressure, and of quantity can be minutely regulated. This apparatus has been copied in other French thermal resorts, but they are less numerous and less generally employed than at Plombières.

Thus Châtelguyon is, above all, a place where the patient drinks the water; Plombières, above all, a place where he takes baths and washes out the intestine. A cure at this resort has the great advantage of teaching the patient to perform the irrigation; he serves his apprenticeship at Plombières by the constant repetition of the same process, by the imitation of his neighbours, just as in a sanatorium the tuberculous patient learns the rest cure and the cure by aeration and over nourishment and is able when he returns home to continue it because he has understood its importance and realised its practice.

But intestinal irrigation is not the only means in use at Plombières. By the baths the general nervous system is affected, is calmed, and the secretive activity and the painful phenomena are modified; by a wisely arranged Hydropathic treatment the impoverished general nutrition is stimulated and the whole organism tonified. Lastly, massage, abdominal and general, is very often pre scribed either to stimulate intestinal atony or to exercise a general tonic action. Kissingen has also a certain reputation in the treatment of intestinal diseases.

But I consider this resort above all suitable in cases of diarrhoea, or, like Châtelguyon, in cases of simple constipation without a concomitant catarrh. For they are, in fact, cold salt waters exercising rather a tonifying, general,

and local action. They are employed exclusively for drinking and bathing, the intestinal irrigations being unknown there. Vichy and Carlsbad can also be recommended, but with a great deal of prudence. I consider it an error, too often perpetrated, to send to these stations habitual cases of colitis and I have more often than not seen patients suffer bad effects from them. They are only suited to cases where the dyspeptic or hepatic symptoms which exist at the same time as the intestinal phenomena are very pronounced; in that case a cure at Carlsbad or Vichy can alternate with a cure at Plombières or Châtelguyon.

Such are the 3 principal elements, a veritable therapeutic tripod, of the treatment of muco-membranous colitis. As may be seen, the means are exclusively Hygienic, and what may properly be called drugs have not much to do with this treatment; they are almost always inefficacious, and sometimes even harmful, owing to the alcohol or other irritating substances that are often mixed with them.

The physician is, however, obliged to fight against the painful phenomena that accompany colitis, for the patient asks for some relief. To this end belladonna in the form of suppositories should be used, or taken internally in the form of tincture or pills (one grain of the extract in five or 6 pills for every 24 hours), or frictions with an ointment containing mercury and belladonna can be given if a calming effect is desired, or with turpentine if a somewhat stimulating action is preferred.

Very hot, large poultices, sprinkled with laudanum, placed on the abdomen also succeed very well; or in the same way applications of large compresses dipped in a very hot decoction of poppy-heads, covered over with impermeable taffeta and with strips of flannel, and kept on the entire night. Indian hemp calms the intestinal spasms very well. A good elastic belt is necessary to hold and to lift up the abdomen in patients who have noticeable enteroptosis.

The physician should be chary (reluctant) of using drugs against the dyspeptic phenomena that accompany colitis, since generally these troubles are lessened as the state of the

intestine improves; but, according to the case, a little hydrochloric acid may be used, or alkalies, absorbent inert powders (charcoal, chalk, magnesia), and nux vomica." - Dr Maurice de Langenhagen, MD, Consulting Physician at Plombieres in "The Lancet", 30 April 1904.

Entero-Colitis

"The terms colitis, ileo-colitis and entero-colitis are general ones, embracing those forms of intestinal disease in which there are found more serious lesions than those of the superficial epithelium, which occur in acute gastro-enteric infection." - Holt

"In cases of entero-colitis the inflammatory infective process may go on until all the coats of the part of the intestine that is affected will become involved. The longer the disease process is permitted to continue, the more the coats of the intestine become involved. Acute entero-colitis usually follows some acute intestinal indigestion of infants and is therefore secondary.

This disease is much more prevalent among infants who are for any reason deprived of their natural nourishment, the mother's milk-and are what is known as bottle-fed babies. This disease is characterized by fever, frequent slimy, blood-streaked stools accompanied by pain and tenesmus, and followed by nausea and prostration. While the lower ileum and colon are usually the most seriously affected, it is not uncommon to find the entire small intestines, as well as the colon, to be more or less seriously involved.

Entero-colitis usually follows upon a simple diarrhoea that may have existed more or less for some time, accompanied with poor digestion, so that it has seemed impossible to find any kind of food that would agree with the little patient. At times it comes on independent of any previous trouble, and is ushered in with a slight chill and fever followed by frequent mucous, blood-streaked stools with considerable pain and tenesmus. In some cases there

will be 30 or more of these small bloody stools in the course of 24 hours. They vary in colour from clear mucus to all possible combinations of green and putty colours, all more or less streaked with blood. The child gradually wastes away until a condition of marasmus develops, and unless this condition can be checked death supervenes.

Prolapsus ani is a frequent accompaniment of this trouble and often occurs with nearly every stool. The temperature after the first few days of the acute onset ranges from 37 C. to 39 C.

Recovery in nearly every case is slow and delayed, and the little patients are likely to be better and worse from day to day without any apparent cause. At times this condition of better and worse seems almost periodical, as it comes so regularly. Usually the first favourable symptom is the disappearance of blood from the stools as well as a lowering of the temperature and a decrease in the number of stools. Broncho-pneumonia is one of the most frequent complications of entero-colitis, and where opiates are given to try to hold the bowels in check brain trouble frequently develops and the child dies from acute meningitis.

In entero-colitis the failure in nutrition and the steady loss in weight is very marked, the skin hangs in loose folds on the thighs and becomes dry and scaly and easily excoriated. Entero-colitis is one of the most fatal diseases of infancy. After due attention has been paid to hygiene and diet, the next most important step in the treatment of these cases is the indicated.

Irrigation of the Colon with normal salt solution is one of the most valuable means of treatment in these cases, using one tea spoonful of common salt to the 500ml of water. At least one gallon of this normal salt solution should be used at one time, and the normal salt solution should be carried high up in the colon. The child should lie on the back with the hips elevated, then introduce the tube a short distance into the bowel and turn on the solution, gradually introducing the tube higher into the bowel, as it is being filled with the solution. After 500ml or more of the solution has been injected, the child will strain and some of the fluid

will be forced out beside the tube, carrying the mucus and some faecal matter with it. This should be continued until the salt solution returns quite clear. This treatment should be repeated once or even twice in bad cases every 24 hours.

In extreme cases the establishment of Colonic Irrigation through the caecum either by cecostomy or appendicostomy is being more and more used and appreciated. In safe hands and with good surroundings it is an operation and treatment that seems capable 'of saving life when everything else fails. The application of the operation as an adjunct to the best internal medication that can be devised may succeed, when, without it, failure would be certain. This operation enables the physician to apply medication direct to the colon,, and by so doing be able to keep the bowel clean and sterile.

Another adjunct to the indicated remedy which I have found very helpful in the treatment of cases of entero-colitis is to lay the child on its back over a hard roll of something so that it will lift the body clear from the bed, allowing only the head and heels to touch the bed, thus producing an extreme opisthotonos (spasm of the muscles causing backward arching of the head, neck, and spine) of the body, and permitting him to lie in that position for half an hour every 2 or 3 hours.

Another method of bringing about the same result is to stand beside the bed of the little sufferer and pass the hands under its back, so that the tips of the fingers press close against each side of the spine, and then raise the body so that only the head and heels touch the bed, holding them in that position for a few minutes at a time, every 2 or 3 hours. This treatment has a tendency to limit the frequency of the stools as well as to prevent the tormenting tenesmus (unable to completely empty the large bowel of stool)." - Dr Charles Hoyt, MD in "Journal of the American Institute of Homeopathy," 1911.

Chapter 24

The Treatment of Chronic Intestinal Stasis

"Constipation has appeared under a new descriptive name, viz., intestinal stasis; but it is the recognition of the fact that poisoning may result therefrom that has made constipation and its treatment the subject of renewed interest. Constipation is not necessarily a condition of infrequent defecation, but may be accompanied by one or more daily stools and even diarrhoea.

This is seen:

1) in the so-called "cumulative constipation", in which in spite of daily defecation there is a gradual feeling of accumulation and great benefit from a weekly cathartic;
2) in faecal impaction or faecal tumour, through or around which material finds a passage, though much retarded, or the irritation of which causes diarrhoea;
3) in Boas' "fragmentary constipation", in which there is a constant consciousness of faeces in the rectum, but no relief from repeated attempts at defecation, these resulting merely in the passage of one or two fragments now and then,
4) in the condition in which, in spite of one or more daily stools, occasional hard, foul-smelling masses are passed.

These constitute the great majority of stasis cases, and are seen everyday. Measures for relief in such cases of chronic intestinal stasis include: the formation of good defecation habit's, prompt response to the desire to defecate, exercise, massage, support of the abdominopelvic walls, foods, water-drinking, softening agents which increase the bulk of the faeces, cathartics, suppositories, enemas.

Habit Formation

This is the establishment of a regular time for the daily stool. The best time would seem to be just after breakfast, because the morning activities and the taking of food both favour colon peristalsis. By the Roentgen ray Hertz noted a perceptible advancement of the colon contents after each meal, and this was most marked after breakfast. Cash noted the increased movement after exercise.

Even when there is no desire to defecate, the attempt should be made; for the voluntary effort may force some faeces into the rectum and so result in the regular defecation reflexes, and the passage of a stool. Good habits also include proper attention to the act itself, for failure to defecate may result from the concentration of the mind elsewhere, as on some interesting book or newspaper.

Response to Desire

In those who do not go to the water-closet when the desire comes, the feeling tends to pass away, and the faecal matter remains in the rectum without arousing further desire to empty the bowels. If this is often repeated the rectum loses its sensitiveness. Hence, rectal insensitiveness is a cause of intestinal stasis in those who habitually suppress the desire to defecate.

Exercise

It is generally understood that bodily activity is sufficient to ensure good bowel movements. Yet we have encountered a number of athletes and active persons who were constipated, and some who led very sedentary lives and yet had daily copious stools (the latter are usually large eaters). Other things being equal, however, exercise tends to promote defecation, both by creating rapid changes in intra-abdominal pressure, and by increasing the appetite so that more food is taken and the food residue in the bowel correspondingly increased. Any active exercise may be

prescribed, such as brisk walking, running, rowing, horseback-riding, tennis and golf, all of which are done in the open air, or dancing and gymnasium and home exercises, which are taken indoors.

Simple daily exercises of benefit may be taken in the lying or standing position. Those to be taken in the lying position might be: lying on the back and raising the legs, one at a time and both together to a right angle with the trunk, raising the trunk to a right angle with the legs, etc. Those taken in the standing position might be: bending forward, knees stiff, till the fingers touch the floor, and then backward as far as possible, the hands being raised above the head; bending far over to one side and then to the other; rotating the body on the hips, the arms being extended; alternately raising the knees till the thigh hits the abdomen, etc. These exercises should be performed in a quick and positive manner, and not in a dilatory way. Trouble some exercises, and difficult postures such as the Trendelenburg and knee-chest, are seldom persisted in by the patient for any length of time.

Massage

This may be a helpful measure when the manipulation of the abdomen is done by some one with general anatomic knowledge and special information about the abdominal organs of the patient under treatment. It should not be instituted if there is any suspicion of a duodenal ulcer, a chronic appendicitis or other inflammatory condition. The bladder should always be empty. The massage may be either superficial or deep. It may be performed by kneading, by a rotary motion in which the abdominal wall slips over its contents, by a rapid vibratory motion, or by rapid slapping with the edge or flat side of the hands, always with a general movement in the direction of the colon. It may be given with a mechanical vibrator. Self-massage may be carried on by rolling a cannon ball, or ball of clay covered with chamois skin or leather, or a wooden ball filled with shot, over the abdomen in the direction of the colon.

Support of the Abdominopelvic Walls

In defecation, normally the anterior abdominal muscles, the diaphragm and the pelvic floor contract or are set so as to raise intra-abdominal pressure. In most cases with ptosis of the viscera, however, not only do the weak abdominal muscles fail to make pressure, but also, by allowing the viscera to fall away from the diaphragm, they deprive this latter of its usual resistance. It is therefore difficult to raise intra-abdominal pressure. Hence an inelastic support extending around the body and from navel to symphysis should be applied the first thing in the morning and worn till bedtime.

Foods

So far as their effect on the bowel movements is concerned, foods might be classed according to the chemical substances they contain, and the amount and character of their residue. They tend to promote peristalsis:

1) by increasing the bulk of the intestinal contents, as by their structural parts such as cellulose, skins, et:., and by unabsorbed oils and fats;
2) by mechanical irritation, as by seeds or husks;
3) by chemical action, as by sugars and fruit acids and their salts, and digestive products, such as soaps, aminoacids, etc.

It goes without saying that those who habitually under-eat will be constipated; in fact, simple under-eating is a frequent cause of constipation.

The same is true of those who habitually eat food that is too readily digested. In either case the residue is insufficient.

Therefore, abundant mixed meals usually favour bowel movements. For residue, cellulose, as furnished by fruits, vegetables, and other plant products is of very great importance in fact, Rubener states that in the absence of cellulose almost everything is absorbed. Substances rich in

cellulose pass into the intestines as paste and stimulate peristalsis, while meat, eggs and milk pass along as liquids, and so favour segmentation, but not peristalsis (Cohnheim). The products of the latter type are then rapidly absorbed and leave but little residue.

Hertz reports that of the dry substance of meat, eggs, white bread and rice, only 5%, appeared in the faeces; while of the dry substance of green vegetables and brown bread 15%, and of the dry substance of carrots and turnips, 20%, was recovered. The faeces of a mixed diet gave 100 gm. of water and 35 gm. of dry substance; the faeces of a vegetable diet, 260 gm. of water and 75 gm. of dry substance. Vegetables and salads mostly contain much fibrous tissue and cellulose. Many of them should be quite as much esteemed for the residue they leave for the bowels as for the nutritive matter they furnish for absorption. Such are lettuce, spinach, carrots, parsnips, oyster-plant (Spanish salsify), turnips, cabbage, cauliflower and squash.

The salad dressing may be a means of furnishing abundant oil, which tends to be laxative. Farinaceous foods include the cereals, the starchy vegetables, such as potatoes, and foods made with flour, such as bread. The cereals contain more or less cellulose. Oatmeal is especially laxative, because of the presence of indigestible husks and excessive cellulose and fat. It is often taken in the form of crackers. White bread leaves very little residue, but bread, biscuits and crackers made of graham flour, or containing bran, leave a large residue and tend to be laxative. It is to be remembered that graham flour is made by grinding the whole of the wheat kernel, bran and all, and is not bolted, so that it contains coarse particles. The so-called whole-wheat or entire-wheat flours have a portion of the bran removed and are bolted, but are coarser than white flour. (Bull. 143, U. S. Dept. Agric.)

Fats tend to be laxative largely because of the soaps which are formed from them in the intestines. They may be given in the form of cream, butter, olive oil, etc. It goes without saying that the greater their nutritive power the less is their laxative effect; for if they are absorbed they do not pass on to

the colon. Fruits contain sugar, cathartic acids or salts, indigestible structural parts (fiber, cellulose, skins, etc.), seeds and non-absorbable colloid pectin bodies. Those most frequently considered laxative are prunes, figs and dates; but an apple, an orange or some grapes at bedtime or before breakfast will often insure the morning stool.

Of this latter group, the acids and salts belong to the saline cathartic class. In young children 1 or 2 teaspoonfuls of orange-juice may be an effective stimulant to the bowel, its acid changing in the duodenum to the laxative sodium citrate. Fruits and other coarse foods have the great disadvantage that they tend to promote gastric hyperacidity and flatulence.

In obstructive or spastic types of constipation they may impede the action of the bowels, or may even form a food ball in the intestines. In one case, F. D. H. Coerr (Enteroliths, JAMA, Dec. 20, 1913) removed from the ileum a ball which weighed 945 gm. and was composed of cereal husks, fruit seeds and other plant parts.

Agents Which Give Bulk and Soft Consistency to the Faeces

The more commonly employed ones are: agar-agar, and small (not expulsive) doses of the saline cathartics. Agar-agar absorbs water and increases greatly in bulk, so that it softens and enlarges the fecal mass. It is not absorbed unless changed bacterially, but it has the disadvantage that if it is not carried out, it forms a most excellent culture medium for the growth of intestinal bacteria.

It is not a very effective laxative and usually requires the addition of a little phenolphthalein or cascara. Used in a similar manner are flaxseed and psyllium seeds, which absorb water, become mucilaginous, and increase the faecal bulk. They serve the purpose of making the bowels move, but they are very subject to fermentation, with the development of gas in the intestines. Of the saline cathartics, the softening doses are smaller than the usual expulsive doses; for instance, 1 or 2 drams of magnesium sulphate or

milk of magnesia are given at bedtime, or morning and night. They act by retarding the absorption of water and so increasing the amount of water that reaches the colon.

This prevents too great concentration of the feces in the colon. The larger expulsive doses of saline cathartics should not be used daily for any length of time, for they bring about a "peristaltic rush" for one or two hours only, and accustom the bowel to an entirely abnormal action. Of the anthracene cathartics, senna, rhubarb, cascara, aloes, aloin and phenolphthalein, little need be said, for they have been prescribed with great benefit for many years.

At times the use for a few nights of an injection of one pint of warm olive oil to be retained through the night, together with one of the softening agents by mouth, will have a wonderful effect in starting the bowels on a new line of activity. Indeed, a number of the chronically constipated referred to us for advice as to the need of surgery, have apparently completely overcome their chronic stasis by this treatment. Sometimes it is wise to renew the oil injections for about one week in each month.

Having thus reviewed some of the simpler remedies, we might sum up the treatment of chronic intestinal stasis as follows: Regularity of defecation, measures to improve intra-abdominal pressure, measures to increase peristaltic activity, and measures to increase the bulk and softness of the colon contents. In the average case attention to habits of life and to the amount and kind of food, and the administration of a softening agent or a very mild laxative will be effective in overcoming the stasis, and, therefore, the toxemia. In severe cases, the addition of an oil enema at night may work a marvelous change for the better. In these chronic cases the drastic cathartics should be omitted from use." - Dr Walter A. Bastedo, MD, Associate in Pharmacology and Therapeutics, Columbia University, in "JAMA", 29 August 1914.

Chapter 25

Conditions in which Colonic Lavage Has Proven Beneficial

"Colonic lavage can be used for either diagnostic or therapeutic purposes. The chief diagnostic uses are:

1. The removal of the bowel contents for examination.

This procedure is especially useful in suspected cases of mucous and muco-membranous colitis, as lavage will almost always remove mucus from the bowel, and its appearance in the faeces enables a definite diagnosis to be made.

Other cases where similar information can be obtained are doubtful cases of chronic amoebic and bacillary dysentery, where examination of the stools will reveal the Entamoeba or the bacillus, as the case may be. In sprue, the copious, pale, fermenting stools with offensive odour, which are passed during colonic lavage, are very typical. Colonic lavage often reveals whether parasites, or their cysts, are present in the bowel, especially Oxyuris vermicularis, the ellipsoidal cysts of Lamblia intestinalis, etc.

2. For the purpose of removing the bowel contents to enable an:

a) external,
b) internal, or
c) Rontgen-ray examination of the abdomen to be made.

In certain cases, when the colon is filled with gas and faeces, it is almost impossible to make a satisfactory manual examination of the abdomen. The difficulty can often be overcome by a preparatory colonic irrigation.

Colonic lavage is a very useful preliminary to a procto-sigmoidoscopic examination. The procedure is also invaluable before Rontgen examination of the bowel, when either a bismuth meal or enema have been administered, or preparatory to examination of the kidneys, uterus, gall bladder, vertebral column, and pelvis.

In all these cases the removal of particles of hardened faeces and accumulations of gas ensures that a uniform field is obtained, and, consequently, errors in diagnosis are much less likely to occur.

Another use to which colonic lavage can be put is for the purpose of deciding in certain cases of constipation whether or not it is necessary to resort to surgical interference.

It is often especially difficult to settle this point in cases of constipation due to adhesions.

A short course of colonic lavage may relieve the constipation when dietetic or medicinal treatment has been quite unavailing, and when every other factor has pointed to the necessity of surgical intervention. On the other hand, failure of the irrigation treatment would be followed by a decision to operate.

Thorough cleansing of the colon can be effected by colonic irrigation, and there are a large number of cases in which this procedure can be carried out with great benefit to the patient before laparotomy or resection of the colon. The danger of the infection of the intestinal wound is greatly lessened. Irrigation is often helpful when carried out before an operation for radical cure of a hernia, as the bowel, which has been thoroughly emptied, occupies a smaller space.

Therapeutic Uses of Colonic Irrigation

In considering the conditions which are benefited by colonic lavage, it is obvious that they can be divided into certain groups, depending on the way in which the irrigation acts. In the case of intestinal disorders, colonic lavage often has a direct action and:

a) Removes the normal and abnormal contents of the bowel;

b) Cleanses the mucous membrane and has a decongestive effect, and also, in certain cases, depending on the solution used, has an astringent, dehydrating, disinfectant, haemostatic, purgative, or thermal action;

c) Acts on the muscle coats of the bowel, induces peristaltic movements and a normal muscular tone, relieves spasm and indirectly causes vascular changes, stimulates the intestinal glands and the abdominal circulation. Reflexly, lavage influences various organs of the alimentary system, such as the stomach, liver, gall bladder, and pancreas in a similar way; it also increases the blood supply of the other pelvic organs.

There are a large number of conditions which benefit from the eliminative action of Colonic Irrigation:

Disorders of the nervous and cardiovascular systems, metabolic disorders, dermatological conditions, and certain affections of the organs of special sense, in fact all the complaints which are due to auto-intoxication. The diuretic action of the treatment is of great value in certain disorders of the urinary tract.

The Eliminative Action of Colonic Lavage is also useful in cases of A**cute and Chronic Poisoning**, where it is a matter of great importance to empty the bowel as speedily and thoroughly as possible. Cases of acute food poisoning, caused by eating unwholesome sausage, potted meat, meat pies, fish paste, etc., infected with certain micro-organisms, or their toxins, can often be relieved by a thorough irrigation of the bowel. It is well known that a number of people have an idiosyncrasy to certain foodstuffs, such as shellfish, strawberries, eggs, milk, etc., which cause gastro-intestinal irritation and the frequent appearance of skin eruptions, when they are present in the dietary.

Colonic lavage is an extremely useful method in such cases, when some unsuitable food has been taken

unknowingly by a susceptible subject. There are a number of complaints in which an allergic state exists, and where a thorough clearance of the bowel is beneficial: the principal disorders of this kind are asthma, migraine, vasomotor rhinitis, urticaria, etc.

Anaphylactic symptoms occur in a number of cases after the injection of some substance, such as antitetanic serum. Irrigation can be carried out. Also in cases of chronic poisoning, due to such causes as the prolonged medicinal use of certain drugs; for example, salvarsan, various gold preparations (sanocrysin, aurophos), mercurial preparations. There is a danger of a mercurial colitis developing in syphilitic cases if particular attention is not paid to the bowels during the course of treatment.

The drinking of large quantities of water, especially sulphur water, and frequent colonic irrigation with water containing some suitable preparation of sulphur, is an excellent prophylactic procedure in these cases. The non-poisonous black sulphide of mercury is formed and eliminated. Chronic poisoning occurs in certain dangerous trades, especially in persons working with lead, and constipation and colic are important symptoms. A course of continuous colonic irrigation is invaluable in these cases.

Professor Bier, of Berlin, first used colonic irrigation in lead poisoning to obtain stools for analysis at a given time, but now he employs the method as an important part of the treatment of this condition. Another type of case in which irrigation is useful is for patients suffering from drug addictions. In these cases, treatment of the bowel forms a very important part of the cure. People who have become morphia, cocaine, alcohol, or other drug addicts, are freed from the violent diarrhoea and the intense mental depression which are such prominent symptoms during the period of withdrawal.

Huppenbauer has found that colonic irrigation greatly shortens the period during which the drug has to be given in reduced quantities, preparatory to its complete withdrawal. He recommends the administration of cardiac stimulants and the Subaqueous method of colonic irrigation to be

employed every other day. He refers to the freedom from the craving which follows the treatment and the general improvement in health. Treatment of a similar character has proved useful in chronic tobacco poisoning; in many of these cases it is not possible to obtain complete abstinence, but periodical courses of treatment improve the general condition and cause the unpleasant taste in the mouth to disappear.

Helen Worthington has reported an interesting case of prolonged retention of certain indigestible matter in the bowel. The patient gave a history of dysentery followed by chronic enteritis. During the middle of the second Subaqueous bath irrigation, 250ml of small seeds was passed. These were found to be raspberry, loganberry, and tomato seeds. The patient had not taken any berry fruits for over 10 months because of the discomfort she had experienced after eating them.

Intestinal Parasites

Apart from the use of colonic irrigation for the establishment of a correct diagnosis in suspected cases, it has great value in the treatment of certain parasitic infections of the bowel. Cases of Oxyuris vermicularis infection respond promptly to a short course of continuous irrigation. Solutions containing infusion of quassia, calumba, pomegranate bark, santonin or oil of turpentine, can be used in these cases. For patients who have some parasite lodged in the small intestine, colonic lavage forms a most valuable adjunct to the treatment by emptying the bowel and removing the anthelmintic and the dead tape or round worms.

Constipation

Another group of cases in which the eliminative action of colonic irrigation is of great value is when there is auto-intoxication associated with constipation. It is obvious that this symptom can be caused by a vast number of different conditions. It is extremely difficult to draw a sharp line

between what constitutes a physiological variation and what is a pathological abnormality. Normally, evacuation occurs once or twice a day. An abnormal condition is considered to be present when the food and its residue take more than 48 hours to traverse the gastro-intestinal tract, and it is more often due to functional causes than mechanical factors affecting the large bowel.

Constipation of short duration often occurs during an acute illness, after a journey, change of diet, change of drinking water, or during emotional distress; these conditions are, however, of a temporary character.

The condition of long-standing constipation can also be due to a great variety of different causes, such as pressure on the bowel by a tumour, kinks due to enteroptosis, or adhesions, and stenosis of the intestinal canal due to ulceration and scarring. Constipation may be due to dyschezia. Inflammatory conditions in the abdomen generally cause constipation, as do certain disorders of the endocrine glands, certain psychical disorders, and some lesions of the spinal cord.

Functional derangements of the bowel associated with an abnormal muscle tone also cause constipation; so, too, do cases in which the diet is unsuitable and there is an insufficient food residue, excessive amount of hydrochloric acid, or deficient amount of bile, etc.

The commonest symptoms of constipation are abdominal discomfort, which is chiefly a sense of fullness; dyspnoea and disordered action of the heart may result from pressure on the diaphragm. There is almost invariably loss of appetite, heartburn, coating of the tongue, and an unpleasant breath. Lassitude, headache, vertigo, and mental depression are other common symptoms.

Functional disorders of the colon may cause:

Atonic Constipation,
Spastic Constipation,
Pelvi-rectal achalasia,

And these may be associated with colic, tympanites, and intermittent diarrhoea; while dyschezia may be due to functional or organic causes.

Atonic or Hypotonic Constipation

Atonic or Hypotonic Constipation is generally found in obese persons of a hypothyroid type, with flabby abdomens. Abdominal palpation is not painful, and it is rare for the patient to complain of any pain. The faeces are generally dry and hard. Rontgen examination reveals a distended colon. The treatment of this condition necessitates a suitable dietary, adequate sleep, and outdoor exercise, and frequently a temporary abdominal support.

The diet should contain a large amount of vegetables and fruits, eaten both raw and cooked, salads, wholemeal bread, honey, jam, lactose, etc., so as to ensure adequate food residues and a sufficient quantity of fermentable material. Colonic Irrigation with the Studa chair or Gymnacolon apparatus is invaluable in these cases; the colon is generally emptied of its faecal accumulations at the first treatment.

Enormous quantities of faeces are evacuated, and, consequently, the over-stretching of the bowel is immediately relieved, and with successive treatments the tone of the intestinal musculature rapidly improves, and the abdomen becomes visibly smaller, and a normal muscular tone is re-established. In these cases the temperature of the irrigating fluid can often, with advantage, be lowered to 38° C, as this produces a greater stimulation of the bowel movements. In the case of the Subaqueous bath, cold douches can be applied to the abdomen. An ammonia enema is sometimes used in these cases.

Spastic or Hypertonic Constipation

This vagotonic condition occurs in the neurotic, hyperthyroid person. Irregular constipation is the rule, and at intervals the faeces are semi-fluid, otherwise they are ribbon-like. Colitis is frequently present, and colicky pain is

often experienced. When the abdomen is palpated, the colon feels like a thick cord, and is generally painful to the touch. A bland, non-irritating diet is necessary in these cases, one which leaves very little residue. No fruit or vegetables must be taken, or foods likely to increase fermentation.

A belladonna suppository can be inserted about half an hour before the commencement of the irrigation, and, in severe cases, belladonna and kamillosan (chamomile) may be added to the irrigating fluid. In other cases the lower part of the bowel is emptied and 200 to 300 c.c. of fluid containing 3 mg. of atropine are slowly introduced.

When relaxation of the bowel has taken place, which is usually the case after a few minutes have elapsed, the irrigation is continued. Some physicians inject 1 to 8 oz. of medicinal paraffin into the rectum before the irrigation is commenced. The irrigating fluid, in these cases, should always be used at a temperature of 41° to 42° C. and an electric heating pad applied to the abdomen; or, in the case of the Subaqueous bath, warm abdominal douches should be given.

Pelvi-rectal Achalasia, Megalocolon (Hirschsprung's Disease)

This is a very uncommon condition in which there is generally a history of constipation from birth. Distension of the abdomen soon occurs. Drugs are of little avail, and evacuation can only be obtained with colonic irrigation. Sufferers from this condition often die at a very early age. O. Olpp has described an interesting case of megalocolon, which he cured with colonic irrigation. The patient was a Brazilian boy, 9 and a half years of age, who had suffered from stubborn, chronic constipation.

Rontgen photographs showed great enlargement of the ascending and transverse colon. Enormous quantities of faecal matter were passed at the first irrigation. After 15 treatments with the Subaqueous bath, the bowels acted regularly. After 6 treatments, Rontgen photographs showed an almost normal appearance of the bowel, and others taken

3 weeks after the termination of the course of treatment, showed even more striking changes. The child was seen at intervals for 1 ½ years, and the cure was maintained.

Dyschezia

Dyschezia is the term applied to the condition in which the patient is unable to defecate completely, the rectum usually containing large amounts of residual faecal matter. Dyschezia may be due to a variety of different causes, such as diminished responsiveness of the rectal reflexes, weakness of the voluntary muscles concerned in the act of defecation, habitual disregard of the call, reflex inhibitions, and, in certain cases, it may be associated with hysteria.

Colonic irrigation is the only satisfactory method of treating these cases and of ensuring their complete recovery, as it is essential for the rectum and pelvic colon to be kept empty, so that their normal tone can be re-established. The irrigating fluid should be used at temperature of 38° C. Treatment may have to be given for a considerable time before the bowel regains its normal contractile power. Dietetic treatment and the use of purgatives is of no value whatsoever in these cases.

Colic

Colic is often caused by flatulent distension of the bowels, or by incomplete faecal obstruction. Colonic irrigation is a reliable method of relieving these two conditions.

Flatulence

Flatulence is chiefly caused by bacterial fermentation occurring in the bowel; some of the gas is, however, swallowed with the food. Normally, flatus is eliminated from the bowel by absorption, the remainder being expelled as flatus. When the mucous membrane is inflamed, normal gaseous absorption does not take place, and flatulence is

generally present. A similar condition occurs in cirrhosis of the liver.

Diarrhoea

Diarrhoea may be a symptom of many different disorders, and is frequently caused by the ingestion of unsuitable food, or excessive secretion of bile; colonic irrigation removes the cause of the intestinal irritation and, therefore, generally relieves the condition. Irrigation should be administered once or twice a day in the summer diarrhoea of infants.

Malposition of the Colon—Coloptosis

Laxity of the muscles of the abdominal wall is one of the commonest causes of enteroptosis, especially when it is associated with a diminution in the amount of intra-abdominal fat. The loading of the bowel, due to constipation, which is nearly always present in these cases, aggravates the condition. The chief cause of the constipation is probably the weakness of the abdominal muscles, but kinks may be present, especially at the splenic flexure, and there is nearly always congestion owing to the tension on the vessels.

Colonic Irrigation by means of the Gymnacolon apparatus or the Studa chair is invaluable in this condition, and the troublesome symptoms can, in the majority of cases, be caused to disappear, the constipation can be cured, and the abdominal pain banished. Dyspnoea, which is present in some cases, is also relieved.

The irrigating fluid not only empties the bowel but also tends to straighten out any kinks which may be present.

As it is customary for 50 or 60 evacuations of the irrigating fluid to take place at each treatment, the abdominal muscles are vigorously exercised and their tone improved. Rontgen photographs taken before and after treatment do not reveal as great a difference as the complete disappearance of the symptoms would lead one to suspect. The increase in the intra-abdominal pressure which follows

colonic irrigation, and which is due to the improved tone of the abdominal muscles, produces an amelioration of the symptoms associated with ptosis of certain organs, such as the kidneys.

Adhesions and Kinks

Colonic irrigation can be successfully employed in the treatment of adhesions and kinks. The beneficial effect is probably due chiefly to the improvement which takes place in the circulation, but the gentle dilatation which the irrigating fluid causes in the constricted areas, also plays a part. In certain of these cases an intermittent valve-like obstruction occurs, but the irrigation is generally able to eliminate this obstacle. Colonic irrigation, as has already been stated, forms a valuable method of deciding whether surgical interference will be necessary in cases where there are adhesions or kinks; if no improvement follows a course of lavage, an operation will probably be required.

Constipation during Pregnancy

Colonic irrigation has proved of great value in these cases. Gaenssle, of the Women's Clinic at Tubingen University, says they have never seen a pregnant woman harmed in any way by the treatment.

Auto-intoxication

This condition generally occurs when the faeces remain in a fluid state and when there is ileal stasis. The majority of bacteria are present in the caecum. Auto-intoxication occurs most often when the intestinal mucous membrane is inflamed or injured, and when there is marked intestinal stasis.

The normal liver filters out, and neutralises, the poisons which are present in the portal vessels, but if the liver is diseased, intoxication is prone to occur, as the poisons are able to pass unhindered into the general circulation. The thyroid gland performs a similar function as the liver, in this

respect, but on a much smaller scale. The remaining poisons are eliminated from the body by the kidneys, skin, and lungs, and this probably accounts for the characteristic odour of the sweat and the unpleasant breath, which are such frequent symptoms of these cases.

It is a matter of great difficulty to determine which conditions are definitely caused by auto-intoxication, but there is no doubt that there are a large number of disorders which do arise in this way. An outline of the conditions which are thought to be caused in this manner, and which are, therefore, benefited by colonic irrigation, will be given, as they form a very important group of cases.

Metabolic or Nutritive Disorders

There seems no doubt that certain cases of malnutrition axe caused by constipation and auto-intoxication, and clinically, it is found that many cases improve after a course of colonic irrigation with the Gymnacolon or Studa chair apparatus. Anorexia soon disappears. Certain cases of anaemia are probably due to haemolysis, caused by toxins which enter the blood stream through branches of the portal vein; these cases improve when a normal condition is established in the colon.

Cases of purpura haemorrhagica improve when irrigated. There is some intimate association between intestinal stasis and gout, because chronic constipation is almost always present. The fact that the tendency to gout is inherited, rather suggests that the mucous membrane of the bowel in these cases has a low resistance against the absorption of toxins.

Improvement in elimination is always beneficial, and an acute attack of gout can often be cut short by colonic irrigation. In addons, especially in post-operative eases, colonic irrigation with alkaline solutions and dextrose is often of great value.

Hyperemesis Gravidarum

Gaenssle, of the Women's Clinic, Tubingen University, has found colonic irrigation a very valuable adjunct in the treatment of these cases.

Endocrine Disorders

It is probable, as has already been stated, that the thyroid gland plays a part in the destruction of intestinal toxins which have been absorbed into the circulation, and that hyperplasia of the gland may occur when there is excessive toxin absorption. The pigmentation which is frequently present in patients suffering from chronic constipation may be due to the effect of intestinal toxins on the suprarenal glands. Colonic irrigation soon causes this condition to disappear.

Disorders of the Nervous System

Persistent headaches are frequently due to auto-intoxication, and a short course of colonic irrigation is efficacious in these cases.

Migraine

Migraine is often caused by constipation, especially when there is distension of the rectum and pelvic colon. Clearance of the bowel by colonic irrigation will give immediate relief to a number of sufferers. In more severe cases the headache may only disappear some hours after the treatment, which confirms the fact that auto-intoxication is present. Constipation frequently occurs in chorea, and probably causes aggravation of the symptoms.

Many authorities believe that constipation associated with toxaemia may act as the exciting cause of the fits in epilepsy. The incidence of fits is certainly lessened when the bowels are kept in a normal condition. Colonic Irrigation is a valuable adjuvant in the treatment of this malady.

Vertigo

Vertigo, which in a number of cases is caused by intestinal toxaemia associated with constipation, is frequently relieved by lavage of the colon.

Neuritis

Many cases of neuritis are caused by auto-intoxication. Neuritis of the left sciatic nerve may also be caused partly by direct pressure of the distended iliac colon on the sacral nerves. Colonic lavage frequently relieves the pain. Cases of Insomnia, associated with constipation, are almost invariably benefited by Colonic Lavage.

Neurasthenia

Constipation, which is frequently present in neurasthenia, often leads to an aggravation of the other symptoms of the disorder. Colonic irrigation plays an important part in the treatment, but other forms of therapy are also necessary. Neurasthenic patients who suffer from pruritus are often relieved of this symptom when they have colonic irrigation.

Mental Disorders

Kaiser has published interesting results of the use of colonic irrigation in certain mental disorders. He considers that faecal stasis is probably the cause of many obscure psychoses, and also that it is responsible for such symptoms as apathy, irritability, perverted moral feeling, melancholia, mania, and even, in certain cases, suicidal inclination.

He made Rontgen examinations after the administration of barium meals to three groups of patients, viz.:

1. Sufferers from dementia praecox.
2. Manic depressive cases.
3. Psychoneurotics.

He assumed that the normal time for the elimination of a

barium meal was 36 to 48 hours, and that periods longer than 48 hours revealed some degree of intestinal stasis. In 80%, of the cases examined, more than 48 hours was required for the passage of the barium through the alimentary canal.

He found that in Dementia Praecox:

86% of the patients required more than 48 hours.
56% of the patients required more than 100 hours.
27% of the patients required more than 150 hours.
16% of the patients required more than 200 hours.
The average time being 113 hours, and the maximum 360 hours.

With the Manic Depressives:

76%, of the patients required more than 48 hours.
51% of the patients required more than 100 hours.
47% of the patients required more than 150 hours.
33% of the patients required more than 200 hours.

The average time was 154 hours, and the maximum time 408 hours.

With the Psychoneurotics:

67% of the patients required more than 48 hours.
33% of the patients required more than 100 hours.
1% of the patients required more than 150 hours.

The average time was 80 hours, and the maximum 166 hours.

Colonic Irrigation was given for several months.

17%, of the dementia praecox group recovered,
50%, improved,
40%, being released on trial.
70%, of the manic depressive group recovered,

15%, improved, while
85%, were released on trial.

In the Psychoneurotic group, 80%, recovered and were released on trial.

Circulatory Disorders

Intestinal toxaemia probably causes cardiac irregularity in certain cases, though the flatulence which is present may be partly responsible. Arteriosclerosis may also be produced by intestinal toxins, which have a direct action on the vessel walls. Certain cases with bad circulation in the hands and feet are strikingly relieved by Colonic Irrigation.

O. Olpp has described a case, a man of 51 years of age, who had had an irregular pulse for a considerable number of years. Shortly after the commencement of his first treatment with the Subaqueous intestinal bath, the pulse became regular and remained so during the course of the irrigation and for an hour afterwards. Olpp thinks that this effect was due to some action of the irrigation on the vagus and sympathetic nerves.

The beneficial effect of Colonic Irrigation in lowering blood pressure in cases of hyperpiesia has been frequently acknowledged. Naturally, the cases of high blood pressure unassociated with arteriosclerotic changes or chronic nephritis have responded most satisfactorily. There seems no doubt that some pressor substance is frequently formed in the colon when intestinal stasis is present, which is responsible for the rise in blood pressure. Bisset treated a number of cases of hyperpiesia (persistent high blood pressure) with intestinal douches.

Blood-pressure readings were taken before and after the lavage. He recorded decreases of from 10 to 40 mm. of mercury, and though the pressure rose to nearly the original figure 12 hours later, there was a steady decrease over a period of days. He found an average fall in the blood pressure of the male patients of 37.6 mm. of mercury, and of 32.5 mm. in the case of the women. He considers that the

improvement in these cases is due to the elimination of pressor substances from the bowel. Abnormally low blood pressure is also frequently associated with constipation, and Colonic Irrigation is valuable in the treatment of the disorder.

Respiratory Disorders

Asthma is frequently associated with constipation. Hurst considers that there is probably a recto-respiratory reflex, and that distension of the rectum with faeces produces dyspnoea. Regular colonic lavage frequently secures immunity from asthmatical attacks in a certain number of cases.

Chronic Bronchitis

Persons suffering from this complaint are frequently benefited by Colonic Lavage.

Rheumatic Disorders

The gastro-intestinal tract is frequently the focus of infection in rheumatic disorders of muscles, fibrous tissues, and joints, and for this reason colonic irrigation is often of great value. Constipation, mucous colitis, and arthritis occur so frequently together, that it is almost impossible for the association to be an accidental one. The autointoxication which often follows constipation leads to a general lowering of tissue resistance and an increased liability to other infections.

Fletcher and Grahame investigated, by means of barium enemas, the condition of the colon in a number of patients suffering from various rheumatic disorders. They found that the large bowel showed some abnormality in 65%, of the cases they examined, caecal lesions being especially common. Striking results have been published by a number of physicians of the dramatic improvement in arthritis which frequently follows the re-establishment of normal bowel activity, and the cessation of intestinal toxaemia.

There is no doubt that many cases of muscular rheumatism or fibrositis have an intestinal origin, and that this fact accounts for the improvement which intestinal lavage produces.

Diseases of the Skin

Colonic irrigation is of great value in a number of skin disorders, and this treatment should always be given when chronic eczema, acne vulgaris, rosacea and psoriasis are associated with constipation. Excellent results have been obtained in a large number of cases, especially in acute recurrent erysipelatous eczema.

In constipation the skin frequently has a most unhealthy, sallow appearance, and it often has an offensive odour.

Pigmentation commonly appears, especially round the eyes, and abnormahties of the sweat glands, such as anhidrosis, bromidrosis, and hyperhidrosis, also occur. These symptoms quickly disappear when regular evacuation of the bowels is obtained. Urticaria, lichen urticatus, and pruritus form another group of skin conditions which is associated with intestinal toxaemia.

Urbach has published particulars of 37 cases of urticaria and 12 of lichen urticatus, which he treated by colonic lavage, surprising improvement being noted after even one or two intestinal baths. He was also successful in 12 cases of pruritus senilis. Cases of angio-neurotic oedema also do well.

The skin diseases which are associated with rheumatism, viz., erythema nodosum, erythema multiforme, and purpura rheumatica, are generally benefited by a course of colonic lavage. Reference has already been made to the value of colonic irrigation in the treatment of cases of purpura haemorrhagica. Some authors have found improvement follow colonic douching in certain cases of alopecia prematura, herpes, seborrhoea, and furunculosis.

Diseases of the Eye

It is difficult to say whether constipation plays much part in the causation of certain eye conditions; but many persons suffering from constipation experience such symptoms as muscae volitantes, eye-strain, hyperaemia of the conjunctivte, etc. Colonic Irrigation frequently affords relief in these cases. Maillard, of the University Eye Clinic, Tubingen, considers that the application of Colonic Lavage frequently shortens the duration of such conditions as scrofulous diseases of the lids, conjunctiva and cornea, iritis, irido-cyclitis, and retrobulbar neuritis.

Disorders of the Throat, Nose, and Ear

Cases of sinusitis associated with constipation generally benefit from Colonic Irrigation. One patient told me that, before the lavage, he was, on an average, using 7 to 8 handkerchiefs a day, but that after the course of treatment one sufficed. The cause of this amelioration was undoubtedly the improvement which took place in his general health. Colonic Irrigation is frequently a valuable adjunct in vasomotor rhinitis.

The Genital Organs

There is no doubt that congestion of the female genitalia is caused by constipation, faecal masses pressing on the veins draining the sexual organs. Various aches and pains, such as a feeling of weight in the lower part of the abdomen, backache, etc., arise in this way. Colonic irrigation with the Gymnacolon apparatus or the Studa chair not only empties the bowel of faecal accumulations and relieves the pressure on the veins, but the rhythmically produced evacuations also stimulate the circulation of the pelvic viscera.

Constipation always intensifies dysmenorrhaea, and, therefore, Colonic Lavage often has a very beneficial effect. Leucorrhoea and menorrhagia are also frequently helped. Varicocele and testicular neuralgia are commonly caused by

constipation, especially when the rectum is distended. Seminal emissions and penile erections frequently follow the same condition. Intestinal lavage is a valuable procedure in all these cases.

Colonic Irrigation has great curative value in another large group of cases where there is inflammation of some part of the intestinal canal. The eliminative action of the lavage is advantageous in these conditions, but the bathing of the intestinal mucosa with certain solutions which may be demulcent, antiseptic, or astringent is also of great importance. The infectious diseases of the bowel which respond most satisfactorily to colonic irrigation are bacillary and amoebic dysentery and sprue.

Dysentery

Colonic irrigation is of great value in the treatment of bacillary and amoebic dysentery. Most of our experience has been with chronic amoebic cases, patients who have been invalided home from the tropics, and who are still passing frequent, unformed stools.

These cases clear up in a surprising way after a short course of lavage.

Occasionally, owing to atony of the musculature, dysentery may be followed by constipation; lavage nearly always cures these cases. 5 litres of the irrigating fluid should be used daily, while the diarrhoea persists. The lavage is only given every 3rd day when the stools commence to be formed. The special diet should be continued for 4 weeks, and the return to normal food should be very gradual.

Sprue

We have had an opportunity of treating a number of very long-standing cases of sprue; rapid amelioration followed the commencement of colonic irrigation. A short course of treatment invariably sufficed to establish a normal condition of the bowels.

Colitis

Colonic irrigation is used extensively for the treatment of various forms of colitis, acute and chronic catarrhal colitis, muco-membranous colitis, and mild, early cases of ulcerative colitis. By this method it is possible to apply direct treatment to the affected colon, and so avoid the procedure, which is of very doubtful value, of giving intestinal disinfectants by the mouth.

The irrigation, when given by the Gymnacolon or Studa chair methods, thoroughly cleanses the colonic mucous membrane, relieves the congestion, acts on the intestinal glands so that their secretions become normal, and stimulates the muscular tissue of the bowel. The treatment, in fact, acts as an internal bath, relieving spasm and pain. De Langenhagen found that 70%, of the 17,000 cases of chronic colitis which passed through his hands benefited from the Plombieres method of colonic lavage. There is no doubt that the percentage would have been higher if the Gymnacolon or Studa chair methods had been used.

The inflammatory condition may be limited to one region of the bowel; if the caecum is affected, it is known as typhlitis, and the terms iliac colitis, pelvic colitis, and proctitis are used when the iliac colon, pelvic colon, and rectum are respectively the principal seats of the trouble. Acute Catarrhal Colitis, which is generally characterised by diarrhoea, colic, abdominal tenderness, and stools containing mucus, usually has an abrupt onset.

Colonic irrigation soon terminates the condition. Chronic Catarrhal Colitis may arise in a variety of ways, the abuse of aperients, alimentary toxaemia, and faecal stasis being, perhaps, the most frequent causes.

The commonest symptoms in these cases is constipation of a spastic type, though there may be intermittent attacks of diarrhoea, accompanied by abdominal pain. Anorexia is generally present, and gaseous eructations are common.

The stools frequently contain mucus, and occasionally blood. These cases respond satisfactorily to a course of Colonic Irrigation which empties the bowel, removing

irritating substances, and bathes and soothes the inflamed mucous membrane. Pelvic colitis is generally the most refractory, and may require prolonged treatment.

Muco-membranous Colitis

This condition, which occurs commonly in neurotic individuals, is characterised by constipation and the passage, at intervals, of membranes, sometimes accompanied by attacks of colicky pain. The membranes interfere with the normal functioning of the bowel, and cause congestion and spasmodic contractions. The membranes, which vary greatly in size and appearance and are frequently tubular in structure, are formed of coagulated mucus.

Colonic irrigation is the most satisfactory form of treatment. Relief is obtained when hard faecal accumulation are removed from the bowel, and when the membranes are detached from the mucous membrane. Lavage given with the Studa chair or the Gymnacolon apparatus can frequently permanently cure the constipation, which is such a prominent symptom of this condition.

Certain critics of the Plombieres method of colonic lavage have suggested that it causes an increased amount of membranes to be formed; this is certainly not the case. What actually happens is that the irrigating fluid removes membranes which have been lying in the bowel for a considerable period, as their shrivelled appearance proves. A large quantity of membranes may be passed during the first few irrigations, but afterwards the amount tends to decrease steadily. A suitable, bland dietary should always be taken by patients suffering from this disorder; the improvement in the general health is generally most striking.

Ulcerative Colitis

Mild and early cases of ulcerative colitis can be treated by colonic irrigation, but great care must be taken, and no cases

should be irrigated where there is any risk of perforation.

Diverticulitis

Chronic constipation appears to play an important part in the causation of diverticula, though atrophy of the muscle coats of the bowel and an abnormal amount of fat in the bowel wall are other factors. The diverticula, which nearly always occur in the lower part of the descending, iliac, and pelvic colons, generally contain hard faecal concretions. Inflammation of the walls of the diverticula usually occurs. Colonic Lavage, which remedies the constipation and removes faecal accumulations, is of value in the treatment of early cases of diverticulosis when there is no danger of perforation occurring.

Peritonitis (Tubercular)

Colonic Irrigation with hot solutions will often relieve the pain which may occur in this condition.

Appendicitis

Constipation is undoubtedly a cause of chronic appendicitis, especially when the caecum and ascending colon are the seat of stasis, and when there is catarrhal inflammation. Colonic Irrigation can be employed with benefit in all cases which are free from the danger of perforation.

Anal Fissure

Anal Fissure is generally caused by constipation. Colonic lavage, which relieves this symptom, is therefore of value in the treatment. Antiseptic solutions can be used in the irrigating fluid.

Haemorrhoids

The pressure of accumulated faeces on the haemorrhoidal veins is one of the principal factors causing haemorrhoids.

Colonic lavage which can relieve constipation is, therefore, of great value in the treatment of internal uncomplicated haemorrhoids. Continuous irrigation also improves the tone of the colonic vessels. Coldish astringent solutions containing adrenalin can be used, as they cause the veins to contract. Pruritus Ani is often due to the presence of hard faecal masses in the rectum, and Colonic Lavage, therefore, gives relief in a number of cases.

Helen Worthington has described an old-standing case of pruritus associated with haemorrhoids in which the irritation entirely disappeared after 5 treatments. There are a number of conditions in which the action of colonic irrigation is chiefly a reflex one.

Gastric and Duodenal Disorders

This method of treatment often relieves the symptoms of anorexia, because the secretion of the gastric juice is reflexly stimulated by the active colonic movements which the lavage induces. Patients frequently comment on the increased appetite which the treatment produces. The removal of putrefactive matter from the bowels also plays a part. Constipation generally disturbs gastric digestion, causing heartburn, flatulence, loss of appetite, furring of the tongue, offensive breath, etc.

Hurst suggests that these symptoms may be due to intestinal intoxication or to reflex or hormone action, which produces an intimate physiological connection between the various parts of the alimentary canal, disturbance of the functions of one part upsetting the functions of another. Reverse peristalsis may occur, leading to imperfect emptying of the stomach, or bile may regurgitate into the stomach.

Dyspepsia and Gastric Stasis are often relieved by colonic irrigation which reflexly stimulates stomach movements. Irrigation with hot solutions in gastralgia often affords relief. Constipation is almost always present in cases of gastric ulcer, and it is generally associated with hyperchloridia. Colonic Irrigation which relieves the intestinal stasis is

therefore a useful accessory method of treatment in such cases, and also in certain disorders of intestinal secretion.

Diseases of the Liver, Biliary Tract, and Pancreas

Colonic Irrigation is of value in a number of disorders of the liver and biliary tract. The effect is partly reflex and partly due to the improvement which occurs in the whole abdominal circulation, following the use of the Gymnacolon apparatus or the Studa chair.

Huppenbauer has drawn attention to the fact that the liver, even in cases of chronic enlargement, has never shown signs of being adversely affected, though it is the first organ to be influenced by the large quantities of water which are usually absorbed by the colon during irrigation. Biliousness and congestion of the liver are benefited by colonic lavage. When cirrhosis of the liver is present, the organ is not able to deal adequately with toxins absorbed from the bowel, and naturally these are increased when there is intestinal stasis. Lavage counteracts the constipation which is such a frequent symptom in cirrhosis.

Catarrhal Angiocholitis

Irrigation is a useful adjunct in these cases. Hot irrigating solutions will sometimes relieve the pain in biliary colic.

Jaundice (Catarrhal)

The disappearance of jaundice is hastened considerably by frequent colonic irrigation, and as constipation is nearly always present in these cases, the treatment also relieves this symptom. Treatment is given each day and two to six applications are generally required. Kuttner has described a case of toxaemic jaundice which cleared up after 10 days Gymnacolon treatment, and in which the enlarged liver rapidly decreased in size.

Cholecystitis is frequently caused by chronic constipation. Irrigation benefits this condition by relieving the intestinal

stasis, and probably there is also a reflex effect.

Cholelithiasis

Constipation is also present in the great majority of these cases.

Disorders Benefited by the Diuretic Action of Colonic Irrigation

Nephritis

Colonic irrigation, which eliminates the contents of the large bowel, lessens the absorption of toxins, and this is of great importance in nephritis when the excretory power of the kidneys is greatly reduced. Colonic irrigation with hot solutions is sometimes of value in renal colic for the purpose of relieving the pain, and small renal calculi are sometimes passed after a course of treatment.

Oxaluria

The profuse diuresis which follows colonic irrigation has been found to be extremely valuable in curing cases of persistent oxaluria.

Pyelitis

Constipation may cause pyelitis, owing to the absorption of bacteria from the bowel and their subsequent passage through the kidneys. Colonic lavage not only relieves the constipation, but leads to prolonged flushing of the kidneys. The profuse diuresis follows the absorption of large quantities of the irrigating fluid by the intestinal mucous membrane.

Cases of B. coli infection respond most satisfactorily, and

can be completely cured often in a surprisingly short time.

Ureteric Calculi

Colonic irrigation is specially indicated in the treatment of this condition. Calculi which are small enough to pass along the ureter are frequently expelled after a few treatments. Irrigation is carried out with hot solutions in these cases, and this relieves the pain to a certain extent, and atropine is added for its antispasmodic effect. The expulsion of the stones is principally due to the marked diuresis which is produced, and which causes increased ureteric peristalsis. Kortzeborn, of the Surgical Clinic, Leipzig University, published in 1928 an account of 17 cases which he had treated in this way.

A series of Rontgen photographs was taken in every case, and these showed that each irrigation caused the stone to move a little lower down the ureter, until it eventually passed into the bladder. He found that in 2 cases the stone was ejected after the 1st treatment, in 5 after the 2nd, in 7 after the 3rd, and once after the 4th, 5th, and 9th irrigations respectively. In several of the cases quoted, other methods of treatment had been unavailing. This form of treatment is unattended by any risks, and can be used for outpatients as well as patients in hospital.

Cystitis

This condition, whether caused by the B. coli or by other organisms such as the streptococcus, staphylococcus, etc., is greatly benefited by a course of colonic irrigation, and often in a comparatively short time. The circulation is improved, especially of the pelvic veins, and diuresis occurs soon after the irrigation, and may frequently continue for as long as 24 hours.

Muller advises 1 or 2 Subaqueous bath treatments to be given at intervals of 2 or 3 days, and then irrigations of shorter duration to be administered every day. He also suggests that the irrigating solutions should be varied at

frequent intervals, saline, alkaline and ichthyol solutions being used in succession.

Prostatic Disorders

Colonic Irrigation can be used before prostatectomy when micturition is not too difficult, flushing of the bladder takes place, and the lavage has a decongestive action on the prostate and other pelvic organs. Irrigation has also been used in the post-operative treatment of prostatectomy. When it is considered how useful colonic irrigation is in such a large number of different conditions, it is surprising that it is not employed more frequently than is the case at the present time." - Dr W. Kerr Russel, MD in "Colonic Irrigation", 1932.

Ulcer of the Stomach

"Dr. Tacke reports 6 cases of ulcer of the stomach, accompanied by hematemesis, which were cured by enforced rest of the organ. In this method all nourishment is given by enema until the ulcer has time to heal. Of course the method suggested is only occasionally beneficial, yet it is surely worth a trial, as, in the majority of similar cases, all the efforts of the physician are fruitless." - in "New England Medical Monthly", Vol.9, 1890.

Treatment of Diabetic Coma and Collapse

"When a patient with severe diabetes, who has been under intelligent treatment, develops coma as the last event in the slow evolution of his disease, without immediate exciting cause, treatment is likely to be of little avail. The administration of large quantities of fluid and the use of Rectal Irrigations or Murphy's drip may all help.

In some cases, however, vomiting and an intolerant rectum may complicate the situation and make these means useless. A Saline Purge is wise, but excretion must be largely through the kidneys and lungs. The most vital measure is

the introduction of large quantities of alkali to neutralize the acids of the blood and tissues, and to render them more easily excreted." - Dr Theodore C. Janeway, MD in "A Handbook of Practical Treatment", 1912.

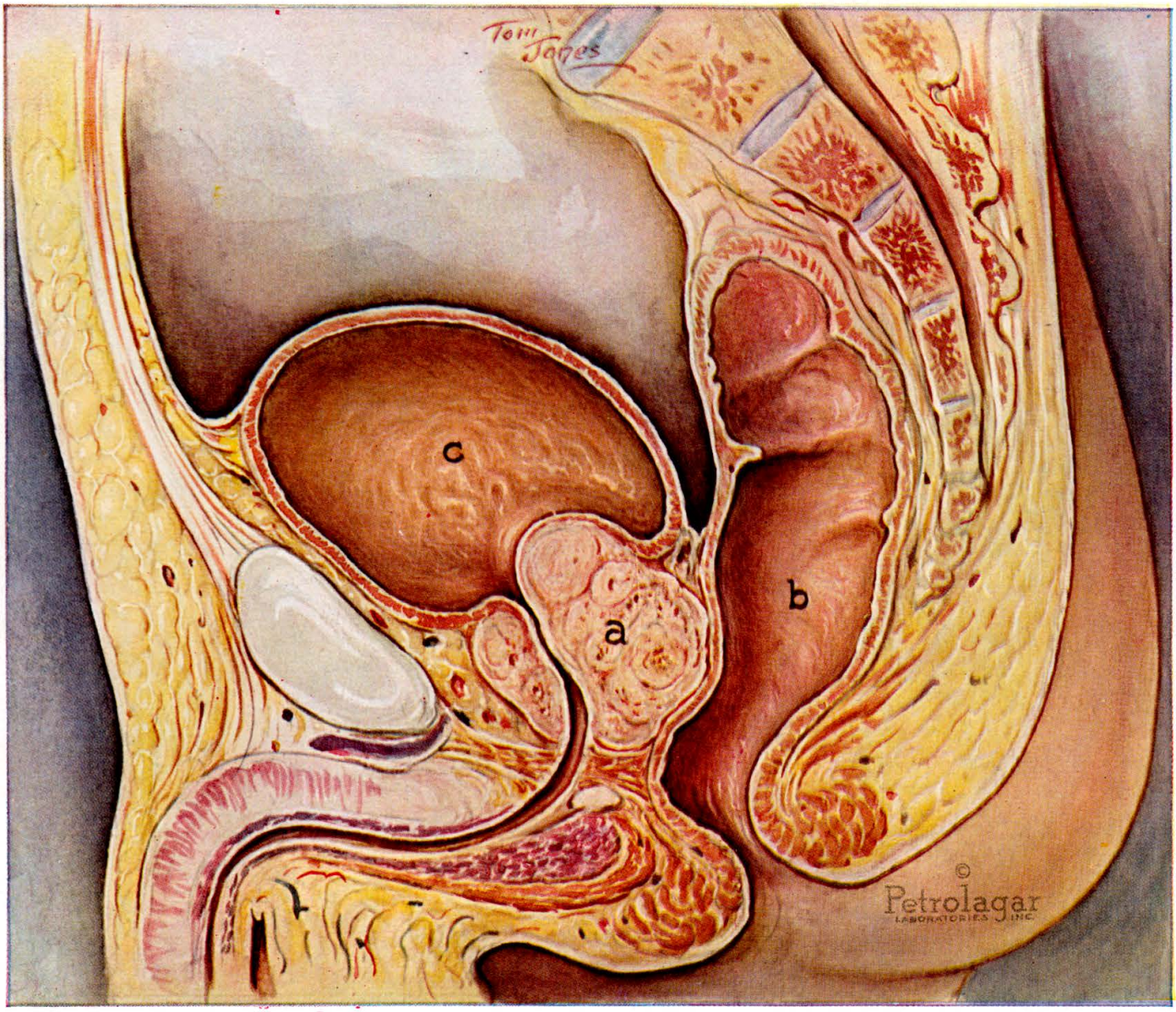
Acute Nephritis

"Acute nephritis has been described as acute diffuse nephritis, acute desquamative nephritis, acute tubular nephritis, acute catarrhal nephritis, acute croupous nephritis, albuminous nephritis, hemorrhagic nephritis, acute Bright's disease, acute albuminuria, acute renal dropsy, epithelial nephritis, glomerulonephritis. These different names have been given largely in the attempt to designate the portion of the kidney that is primarily or chiefly involved or to indicate the nature of the process.

Circulation of the kidneys may also be modified by hot Rectal Irrigations or Enteroclysis with normal salt solution. Continuous irrigation is given for from 10 to 15 minutes. By the retention of a certain amount of water continuously in the large intestine, absorption takes place from the pelvic vessels which stimulate the flow of urine through the kidneys. The heat of the solution affects the renal circulation reflexly and diminishes the hyperemia.

Aconite, 1 or 2 minims every hour until there is well-marked reduction in the force of the circulation, has been recommended by a number of authors. The claim has been made that it is not only a sedative to the general circulation, but influences directly the renal hyperemia. The use of the above methods to relieve the hyperemia in acute nephritis will depend upon the severity of the case. In mild cases putting the patient to bed in a warm room, warmly clothed, hot applications to the back, mild diaphoresis, and a thorough relieving of the bowels by saline cathartics, may be all that is necessary. In the more severe cases the treatment must be more energetic, and must be persevered in as long as there is hope of modifying the pathologic processes in the kidney.

As the skin shares with the kidney the function of



Section Through Male Pelvis

Shows relationship of enlarged prostate to rectum.

a — Enlarged Prostate

b — Rectum

c — Bladder

eliminating from the blood substances which have the power of stimulating or irritating the kidney and increasing its hyperemia, free diaphoresis should be induced by hot-air baths, by the hot pack, by the electric light bath, or by pilocarpin. The method of applying these means and their indications have been considered under "Uremia." The congestion of the kidneys may also be influenced by purgation.

The action of the bowels is a most important one in diminishing the work of the kidney. Substances normally found in the urine are absorbed from the intestines and thrown of by the kidneys.

By free action of the bowels the absorption of these products is prevented. The amount of urinary water is also diminished when the movements of the bowels are liquid. It has been proved that when the movements of the bowels are solid the feces contain but a small amount of chlorid of sodium.

On the other hand, when they are liquid they contain a larger percentage, while the amount of the chlorid in the urine is diminished. The cathartic used should produce free and copious movements of the bowels, but the medicine should not contain any ingredients which will be absorbed in the blood and cause renal irritation through elimination by the kidneys.

The saline purgatives, especially sulphate of magnesia, the compound jalap powder, or elaterium, meet the indications. Many authors advise the use of the more drastic purgatives. As it is necessary for the bowels to be kept active for some time, no cathartic should be used which may induce secondary inflammation of the intestines. To secure physiologic rest for the kidney by reducing the functional activity the dietetic treatment of acute nephritis is most important.

When there is but slight involvement of the kidney, it is merely necessary to reduce the amount of food, and milk in these cases is the most suitable diet, or if it is not well borne, the lighter meat broths or albumin-water. As diuresis is generally free in these cases, the free use of diluent drinks is

indicated. In severe cases the diet should consist of the smallest possible amount. In extreme cases it may be necessary to withdraw practically all food for 24 to 48 hours. The thirst may be combated by allowing the patient to suck ice, or by giving very cold water in small quantities, one teaspoonful at a time.

Pyelitis

Inflammation of the pelvis of the kidney may occur as:

1. Catarrhal pyelitis;
2. Suppurative pyelitis with distention of the pelvis or pyonephrosis;
3. Pyelonephritis, in which there is extension of the suppurative process to the substance of the kidney;
4. or Suppurative nephritis, or acute interstitial nephritis with suppuration.

Pyelitis may depend upon gastro-intestinal disturbance, as constipation or one of the catarrhal conditions. Attacks due to intestinal causes are especially frequent in children. With the removal of the bowel condition and the use of urotropin or salol, the pyelitis rapidly disappears. Spontaneous or rapid cure of pyelitis is dependent chiefly on the absence of obstruction to the flow of urine from the kidney to the bladder.

When there is no obstruction, the natural process of irrigation removes the infecting organism. If the irrigations produce irritation or increase frequency of urination, they should be stopped. Unless marked relief is obtained by the irrigations in a few days, they should be discontinued, as frequently they prolong the bladder irritation." - Dr Egbert Le Fevre, MD in "A Handbook of Practical Treatment", 1912.

Asthma

"Particular attention must be paid to the skin. It is wise to have an artificial sweat with cabinet or vapour bath once a week, and to have proper frictions with the daily bath. If there is intestinal autointoxication, irrigation is of greatest service." - Dr John H. Musser, MD in "A Handbook of Practical Treatment", 1912.

"The diet should be soft and easily digested. It should be given in small quantities. The bowels should be kept open, and this can best be done with small enemas rather than with drugs." - Dr J. Alexander Clarke Jr., MD in "Status Asthmaticus or Severe Subacute Asthma", Journal of Allergy, Vol.4, Issue 6, September 1933.

"Le Mont Dore is a quiet little village which lies between the hills in south-central France. A spring of hot water comes out of the ground, and since the days of the Romans this "source" has been regarded as good for asthma. Patients come to Le Mont Dore from all over Europe, and for each one a course of treatment is prescribed. The water is drunk in measured quantities and then it is applied in the form of baths, steams, inhalations, gargles, sprays, douches, and enemas in regulated quantities and with ritualistic techniques. All patients with asthma do well in Le Mont Dore." - Dr Francis M. Rackemann, MD in "Journal of Allergy", Vol. 22, Issue 1, January 1951.

Mucous Colic

"Mucous colic is a manifestation of perverted secretory and reabsorptive functions of the intestinal mucosa. It is a general disease in which there is an abnormal secretion of mucus from the whole internal surface of the alimentary canal. The fact that many different names and many aetiologic factors have been advanced to designate the train

of symptoms and explain the pathology of the disease serves to show that as yet there is not an entire consensus of opinion as to the proper classification of this condition. In my writings for the last 20 years I have preferred and used the term mucous disease and membranous enteritis.

In order that the reader may not be confused and may understand the disease of which I treat I append a portion of the host of synonyms under which the disease appears in medical writings: Pellicular colitis; intestinal cast; pseudo-membranous enteritis; intestinal desquamative catarrh; mucous disease; chronic muco-colitis; chronic cramps of the intestine; chronic pellicular inflammation of the intestinal mucous membrane; fibrinous diarrhoea; follicular, duodenal, or colonic dyspepsia; chronic pseudo membranous gastro-enteritis; tubular looseness; tubular exudation; casts of the intestine; mucous or gelatinous diarrhoea; mucous casts; hypochondriasis pituitosa: chronic exudative enteritis; diarrhoea febrilis; paraphexin rheumatica; mucositas intestinalis colloides; mucous disease of the colon.

> *The French Writers: Entérite interstitille; entérite pseudomembraneuse; colique glaireuse; concutiones gelatineformes intestinales; diarrheé glutineuse; entérite glaireuse; herpétide exfoliatrice; colite séche; dysentery du colon transverse; entérite mucino-membraneuse; concretions muqueses membraniformes de l'intestin.*
>
> *The German writers have also adopted their peculiar nomenclature. Walter, in 1885, wrote upon "Enteritis Membranacea" (Von Leyden, Deutsch. Med. Wochenschr., 1882. Bd. xvi ; Nothnagel, in 1884, upon "Colica Mucosa," and others have written of the disease under other names.*

Most cases give a history of antecedent dyspepsia and constipation alternating with diarrhea in addition to the so-

called pelvic symptoms of women. It may follow typhoid fever, enteralgia, hemorrhoids, the infectious diseases, particularly measles and scarlatina, and more particularly pertussis, and the abuse of drugs, notably podophyllin and mercury.

We have thought, and so taught our classes for many years, that the true aetiology of the disease is to be found in disorder of the nerves which preside over the nutrition and secretions of the intestines; the ganglionic nerves of the intestines are at fault, This view is indorsed by Nothnagel, who also agrees with me that the neurasthenia that accompanies the disease so often is in fact the cause of it, a statement further indorsed by many, notably Harrison,

King, Osler, Weigert, and Westphalen. It has been charged that those of us who believe in this pathology get over the difficulty that the disease is sometimes found associated with definite lesions of the colon by putting these cases in another class and calling them secondary colitis, or by some other designation. Now, this is exactly what I have been contending for for more than 20 years, namely, that there is a disease of the colon whose pathology is that of a disease or disorder of the nerves that preside over the nutrition and secretion of the colon, without demonstrable lesions in the colon itself. It is but fair to say that Lockhart Mummery, Van Noorden, Boas, and Tuttle continue to maintain that the condition is always a true colitis with definite lesions in the colon. It has always seemed to me that the confusion that has arisen is due to the fact that both diseases exist, that both are mucous colitis, but that their aetiology and pathology are different, one being the result of abnormal nerve-supply, and the other the result of lesions within the colon itself.

These patients do not lose the normal contour of the body, but present some evidences of malnutrition. They may have from time to time eruptions of furuncles or carbuncles, sore mouth, or herpes of the genitals, and an irritable nervous system. Emaciation is rarely a marked symptom; this almost complete lack of emaciation persists throughout the disease, notwithstanding the amount of matter passed out. The number of paroxysms and the duration of the attack are

variable. Some patients can foretell an attack with remarkable accuracy by certain symptoms which they have learned to know always precede a paroxysm, as chilblains, blueness of the nails, and tingling or pain at the finger-tips. A person the subject of this disease may suffer but one attack in a year, or one a month; or, on the other hand, the paroxysms may be continuous, or nearly so. In the more chronic cases there may be an almost constant sequence of symptoms.

We must bear in mind that these patients are usually dyspeptic, and suffer more or less constantly from abdominal distress and constipation. Just before an attack the abdominal distress becomes actual pain, and is usually referred to .the region about the umbilicus, or the tenderness may exist over the entire abdomen, or, again, it may be deep-seated and only demonstrated by careful palpation. Some cases discharge the membrane only about once a week; others may have 10 or 12 membranous stools in 24 hours during the paroxysms.

Hemorrhoids, prolapse of the rectum, diarrhoea, jaundice, extreme thirst, coated, anemic, and fissured tongue, aphthous ulcer of the mouth, and tonsillar phagedena have all been noted in the symptomatology of the disease, either as direct symptoms or as concornitants. The nervous system presents many and varied manifestations. The hysterical derangements are the most frequent of all the functional disturbances. This applies to both males and females affected with mucous disease. The following symptoms have been noted: Neuralgia, hyperesthesia, irregular muscular tremors, paresis, hysterical tetanus, coma, and convulsions. Transient defects in vision, tinnitus aurium, and diseased sense of taste are all among the recorded symptoms. Whitehead notes chorea and paralysis in children (a number of cases of mucous colitis have been recorded in children about the 10th year of life), and Copeland has observed a cataleptic condition following one hysterical outbreak in one who was the subject of mucous disease. Mental depression, faulty memory, hypochondriasis, and melancholia may be exhibited for a

time, to be followed in some cases by increased mental activity. The association of this disease with uterine disorders has already been noted. A simultaneous discharge may take place from the bladder and the bowel.

Cystitis, strangury, and frequent micturition may cause loud complaint. The urine presents no specific alterations. The diagnosis presents but few, if any, difficulties. The colon seems to be generally the selective site of the disease. This is not always the case, however, as the small intestine may be invaded, either in conjunction with the colonic deposit or entirely independent of it.

Treatment

Many of the patients will have a diarrhoea, and then diet must be greatly modified to suit their special indication. Many of the cases have an alternating diarrhoea and constipation, the former occurring most of the time and the latter occasionally.

The internal use of natural mineral waters has not proved of much benefit in my hands. I have certainly not seen a single case markedly improved by their use, and in many they seem to aggravate all of the uncomfortable symptoms. If it is necessary to use purgative drugs, the milder laxatives should be selected; drastic purges will make the patient extremely miserable for days or weeks.

My preference, as already stated, is cascara sagrada, but rhubarb, castor oil, licorice powder, and possibly aloes may also be used, sometimes with great advantage, but always with caution. White says that if the large bowel is kept in an empty condition by the use of castor oil, the case will probably recover. Colonic Irrigation is of extreme value, not alone to remove the accumulated mucus and decomposed intestinal debris, but it also has a happy local effect. We must remember that it is often quite impossible to remove all the mucus; postmortem study has shown that mucus is often so strongly adherent to the bowel wall that it is not removable even if a strong stream of water is allowed to play directly on it.

My plan has been to wash the colon with physiologic salt solution daily for perhaps a week, and then, in accord with Kussmaul and others, to use large Enemas of pure olive oil in which the fatty acids have been removed by shaking with water.

The Enema is given at bedtime, allowed to slowly run into the colon, and is to be retained overnight, because portions of the bowel may not be reached by simple injection, owing to spasmodic contraction, and hard masses of faecal matter may be allowed to remain if simple water enemas are used; thus a constant irritation of the bowel persists. Patients can retain from 250 to 500 c.c. of this pure, unirritating, acid-free olive oil.

Of course, if it is repeatedly rejected a smaller quantity is to be used. It may be useful to give a mild narcotic and allow the patient to fall asleep, thus assisting the retention of the oil. When the patient awakens, the oil, feces, and masses of mucus are passed all together.

This treatment is to be persisted in for a long time, probably for 6 months, at first daily for 2 or 3 weeks, then every other day for perhaps a month, and three times a week for the remainder of the period. I cannot say that in this way it is possible to promise cure, but I can say that this plan, in conjunction with a proper diet and a proper mode of living, has done more for me than any other method that I have used for more than twenty years.

Some writers advise the addition of bicarbonate of soda to the salt solution enemas, and it is often efficacious. We use 3 or 4 grams to the litre, and it seems to bring away larger masses of mucus.

I agree with recent writers that many of the neurasthenic symptoms may be attributed to the toxemia due to absorption of toxic substances from the intestinal tract, but I do not agree with the statements that the administration of drugs known as intestinal disinfectants will combat the condition.

Intestinal disinfectants in my hands are without value. For disinfection I depend entirely upon the irrigation with salt solution. I am positive that the addition of chemical

substances to the irrigating fluids is harmful in most cases.

In my opinion Gastroptosis, Enteroptosis, and Hepatoptosis are non-surgical conditions.

Electric enemas have been indorsed in the treatment by as good an authority as Dr W. Hale White, MD (Lancet, 28 Oct. 1905). About 10 treatments may be given. A colon tube which contains a copper wire that is to be connected to the positive pole of a battery. Large clay electrodes are placed on the abdomen and back and connected with the negative pole. A current of from 15 to 20 milliamperes is then passed for 15 minutes. This treatment is said to produce natural movements, both in frequency and in consistency. The mucus disappears and flatus is absent.

We wish to make it very clear that the only hope for cure and for permanency of cure is to establish a normal action of the bowels, not only while the patient is under our personal observation, but for all the rest of the life of the individual. This must be done by the ingesta alone, and it is after we have established this action by the means above detailed that we fully indorse the principles, and to a certain extent the dietary. As soon as the spastic constipation with colica mucosa is removed and the action of the bowels is normal, the disease may be considered as cured.

But we must clearly understand just what is meant by normal bowel action.

Even if the colour, consistency, form, and chemical composition of the feces are normal, the action of the bowels cannot be considered to be normal if laxatives of any kind, massage, injection, or suppositories are required to promote bowel evacuation.

Not alone, then, must the bowels be absolutely normal, but we must improve the general nutrition if we wish to attain and maintain a permanent cure. The choice of foods must then be selected with this dual purpose in view: the relief of spastic constipation and the upbuilding of the patient." - Dr William A. Edwards, MD in "A Handbook of Practical Treatment", 1912.

Cyclic or Persistent Vomiting

"There is a form of vomiting which has been called cyclic or persistent vomiting and which is often mistaken for a severe acute gastric indigestion. It rarely occurs in infants, but is seen most frequently in the middle period of childhood. It is undoubtedly due to some profound disturbance of metabolism with faulty elimination, resulting in an acute autointoxication. It is associated with the presence of acetone and diacetic acid in the blood and urine.

The treatment should provide absolute rest to the stomach, maintaining strength by rectal feeding and irrigation, neutralizing the acid condition by bicarbonate of soda, and using sedatives to allay the excessive nervous symptoms. Too much emphasis cannot be placed upon the uselessness of medication by stomach. Nothing is retained during the vomiting stage.

Lavage acts only as further cause of mental excitement and irritation to the stomach, but irrigation of the colon once or twice daily with normal saline solution containing from 1 to 2 drams of bicarbonate of soda is distinctly indicated. It relieves the excessive thirst and encourages elimination of the accumulated toxic substances in the blood and intestines. The saline irrigations suffice for the first day. In the nutrient enemas should be put whatever medication is to be used.

Fermental Diarrhoea

Fermental diarrhoea, characterized usually by the initial rise of fever, which subsides in 24 or 48 hours, and by stools which are frequent, large in amount, loose, often of watery consistency, yellow to green in colour, foul or sour in odour, sometimes frothy, and containing small or large amounts of mucus but no blood.

The constitutional symptoms may be mild, as in the deficient-secretion type, or severe and associated with vomiting and general malaise. The essential points which lead one to classify it as a form of intestinal in digestion and to separate it from infectious diarrhoea are the rapid

subsidence of the fever soon after the thorough evacuation and irrigation of the bowel, the rapid improvement in the general condition, and the speedy recovery under appropriate treatment." - Dr Maynard Ladd, MD in "A Handbook of Practical Treatment", 1912.

Chapter 26

Conditions that Benefit from the Treatment

Achylia Gastrica Achlorhydria Hemorrhagica Gastrica Achylia Gastrica

(Synonyms: Atrophy of the Stomach; Atrophy of the Gastric Mucosa; Anadenia Ventriculi; Phthisis Ventriculi; Atrophic Gastritis; Catarrhus Atrophicans)

"**Definition**

Achylia gastrica (the term first suggested by Einhorn) may be defined as a functional perversion of the stomach, characterized by the absence of the gastric secretion (of hydrochloric acid, pepsin, and rennet). Introduction: In many cases, atrophy of the mucosa is the cause, and the condition is permanent. Einhorn, however, has reported a case in which there was eventually some return of secretion, so that portions of the mucosa could have not been much altered; and a case of achylia in a vegetarian, apparently an atrophy from disuse.

Achylia gastrica may result from organic changes in the stomach, or may be a pure neurosis, or a temporary disturbance of function. The loss of Junction may be temporary from nervous disturbances, and A. Rose and the author have observed achylia occurring in gastroptosis, with a return of secretion following the cure of ptosis, the latter apparently being a factor, though causing disturbances of the circulation. Temporary achylia is present occasionally with mucous colic.

History

Atrophy of the gastric mucosa was first described in

connection with pernicious anemia by S. Fenwick, and later by Lewy, Ewald, Osler, Kinnicutt, Nothnagel, Boas, and others.

It was believed to be the cause of pernicious anemia and productive of the fatal result Herter has demonstrated the influence of intestinal putrefaction, chiefly through the gas bacillus (Bacillus aerogenes capsulatus), in the production of pernicious anemia, and favourable results produced by intestinal irrigation and lactic acid fermented milk diet. Intestinal irrigation is of value in these cases when putrefactive processes are present in the intestines." - Dr Robert Coleman Kemp", MD,Professor of Gastro-intestinal Diseases at the Fordham University Medical School in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Acidosis

"Acidosis when it occurs, is probably dependent upon toxic disturbance of liver or other organ influencing metabolism, or to direct absorption of an acid poison. It must be controlled if it makes itself at all evident. The symptoms by which the condition is recognized are not definite, tho they include dizziness, dypsnea, restlessness, vomiting not due to gastro-intestinal irritation, muscular twitchings, tendency toward coma. The best test for acidosis may be difficult to carry out in cases of poisoning: if the urine remains acid after the administration for 2 days of 3 doses of 2 drams each of sodium bicarbonate in water, taken on an empty stomach, there is likely some acidosis.

This test might be of value during the subsequent care of many poison patients to avoid the insidious development of the condition. Many times it can be readily recognized. The treatment may be administration by mouth of sodium bicarbonate in large doses; proctoclysis or intravenous infusion of compound saline solution (see Collapse Treatment) to which is added one-half to one per cent of sodium bicarbonate; or (more recently recommended) 10% sterile solution of dextrose by proctoclysis or slow intravenous infusion. Diaphoretic measures may be an

adjunct to this "blood lavage," as it has been called. Persistent Vomiting and Persistent Purging need to be controlled if possible because they tend toward production of both collapse and exhaustion. Their control is not easy, however. Often they are due to collapse or to acidosis or uremia which must be treated. If primary, lavage, flushing of the colon and the use of demulcents may succeed." - Dr Louis C. Chandler, DO in "The Essentials of Clinical Toxicology", 1916.

Acne Aetiology and Treatment

"Acne is a disease depending on both general and local causes. One important general cause is autointoxication frequently due to disturbances of the digestive organs and probably consists in the absorption of toxic products originating in the intestinal tract. These toxins lower the resistance of the skin to infections and consequently the sebaceous glands become a nidus for the proliferation of various micro-organisms.

Among these, the most prominent are the Bacillus acne, described by T. W. Gilchrist, in an article in the Journal of Cutaneous Diseases, March 1903, which was abstracted in The Journal, 11 April 1903, and various forms of pus cocci. particularly the Staphylococcus albus, which is said to be found especially in acne indurata.

Elimination should be promoted and the diet so regulated that both the gastric and intestinal digestive processes proceed properly and thus prevent autointoxication. The bowels should be kept open by appropriate laxatives and in certain cases Colonic Flushing will be useful." - in "The Journal of the American Medical Association", Vol.55, 1910.

Acne Vulgaris

"My young brother has had a bad case of acne vulgaris for some years. I have had him under treatment since June, 1906. Conditions were practically the same the two

summers, except for the intestinal antiseptic. This fall the "kid" returned with a clear skin. If it wasn't the "intestinal antiseptic" that did the work, what was it? Before the sulphocarbolates were given, the disease hung on stubbornly and the bowels were a caution for odour.

As soon as the sweetening process was duly established the trouble yielded. This is not an isolated case. I am beginning to believe that it is easier to cure almost anything with than without the sulphocarbolates. One may almost say they are always indicated." - Dr Malcolm Dean Miller, MD in "The American Journal of Clinical Medicine", Vol.15, 1908.

Amebic Dysentery

"Last year I treated two cases of amebic dysentery that in some ways were of great interest. At the suggestion of Dr. Dock the first patient was treated with the salol-covered ipecac pills, 5 grains being given at a dose, and repeated every hour. But my method of administration differed somewhat from his. I first prepared the patient for medication.

The first time the ipecac was given, 65 grains altogether, there was considerable diarrhea, tenesmus and pain. An examination of the stools the next morning, to my astonishment, revealed no amebas, nor could any forms resembling dead ones be found. For the next 2 weeks I gave the patient nothing but Colonic Irrigations; in addition the patient had rest, a soft diet, etc. In two weeks he was put through another course of ipecac, receiving a little more this time. All through there were no amebas in the stools, the patient experienced very little pain. In another week he was given 80 grains more of salol-covered ipecac pills. That was last November.

Seven months have elapsed and the patient has gained in weight and feels very different since his infection. To all intent and purposes he is absolutely well. In this case the interesting feature was the degree of ulceration in the lower bowel which could easily be seen with the sigmoidoscope.

These ulcers are entirely healed. His stools are normal in gross appearance and in the course of repeated examinations I have never found a sign of an ameba. The other patient was a young soldier from the Philippines.

He received a typical course of treatment, being given large doses of salol-covered ipecac pills. This patient was also irrigated because I felt that some benefit would result from flushing the large bowel. He, too, is well. I am sure that there are other cases like this in different parts of the country as far north as Michigan, but we fail not only to recognize these cases, but also to treat the patients by what I believe to be the only satisfactory method, namely, administration of large doses of ipecac." - Dr. Hugo A. Freund, Detroit, Mich., in "Transactions of the Section on Practice of Medicine", 1909.

Anaemia

The Diagnosis and Treatment of Pernicious Anaemia

"In entering upon a discussion of pernicious anaemia, one must recognize primarily that it is a condition rather than a disease, due to some toxic influence and representing a greater or lesser degree of injury to the blood-making tissues, especially those concerned in the formation of red cells. It seems proper to preface the consideration of the diagnosis and treatment of pernicious anaemia by a brief statement as to the present conception of the nature of the process.

While the ordinary classification into symptomatic or secondary, and pernicious anaemia prevails, essentially they are similar conditions differing largely in degree only; both anaemic states are secondary and evidently of toxic origin, the injurious influence in the former manifesting itself mainly as a haemolysis but in the latter the toxic irritation is more prolonged and as the bonemarrow and other blood-making tissues become affected, a condition of disturbed haemogenesis results. Pernicious anaemia as a disease

condition represents an active haemolysis as well as a disturbance in the genesis of the red cells. Addison in his first description of pernicious anaemia stated that it occurred without discoverable cause, and even though more than half a century has passed by since then, the exact etiology is still a problem. From our present knowledge of its pathogenesis we recognize that the etiologic agent is essentially a severe poison that has a selective degenerative action not only on the bloodmaking structures, but also on the spinal cord, heart muscle, liver, and kidneys.

It is but natural that the first rule should be to place the patient at rest because of the low blood count, physical weakness and general necessity for restricting all exertions. There is no doubt that good hygiene, nourishing food and living out of doors tends to prolong life. In making some studies on metabolism in this class of patients, we felt for a long time that the keeping of patients on a purin-free diet relieved much of the intestinal fermentation, and it is likely that the avoidance of nitrogenous food tends to diminish the intestinal bacteria, but we have become convinced that no special improvement in the general condition can be attributed to this feature, and there is no evidence that any special diet has any influence on the course of the disease.

On account of the researches of Herter, attributing to anaerobic bacteria a prominent role in the intestinal fermentation, which is regarded as the source of the enterogenic origin of the disease, various measures have been proposed for cleansing the bowels which are to be an improvement over the administration of cathartics. Herter favoured the method of Colonic Irrigation with normal salt solution and has reported some very gratifying results by this means, noting particularly that coincident with the improvement, the anaerobic bacteria became less in the stools. He drew the natural deduction from this fact, that there was some etiological relation of these organisms to the disease process." - Dr Walter L. Bierring, MD in "International Clinics", Vol. 4, 1909.

Pernicious Anaemia

"Herter's recent investigations show that high irrigation of the colon is of even greater importance than is gastric lavage. The prompt improvement in the symptoms and blood picture after instituting high colon irrigation with normal salt solution is very striking." - in "Treatment of Internal Diseases, For Physicians and Students", 1915.

Pernicious Anemia with Exhibition of Case

"Dr. Theodore C. Janeway presented this patient because he had had him under his personal observation for 5 years, during three of which he had been in excellent health. The history of the case dated back even 9 months prior to that time. In looking over the literature he was impressed with the fact that so few cases had been followed any length of time, very few having been observed even as long as one year after discharge.

The patient he presented was a man, 47 years old, who came to him at the University and Bellevue Hospital clinic in March, 1900. He had a good family history. He had specific disease 20 years before. The only previous history he gave was that of having had malaria when 11 years old, and typhoid fever 13 years ago. This was followed by jaundice which persisted for two or three years. He lost weight from 165 to 87 pounds. In 1899 he began to have diarrhea, ten or twelve passages a day; he became yellow and remained so until he saw him at the clinic. There was no blood or mucus in the stools. There was no pain. When first seen he was moderately emaciated and he had a slight jaundice. The liver was not enlarged, but there was noted a nodule on the lower border. He also had a palpable spleen. The case was first considered to be one of gumma of the liver and he was treated with bichloride and the iodides under this assumption.

On that treatment the Jaundice disappeared, but a rapid anemia developed within 2 weeks. At this date, 16 April

1900, there was 40% hemoglobin and 2,333,000 red cells. He then began to have exactly the same kind of diarrhea that he had before, became tired on exertion and again came to the clinic with a dilated heart, palpable spleen, slight subcutaneous edema, but with no retinal haemorrhages.

On 31 December 1901, there was found 40% hemoglobin, 1,736,000 red cells and 4,200 white blood cells. On January 13, 1902, there was 50%, hemoglobin, 1,936,000 red cells and 2,200 white blood cells. There was no hydrochloric acid or pepsin in the gastric juice. He was given calomel purges and irrigations of the colon in the knee-chest position, and he again made a rapid recovery.

On January 23, there was 63% hemoglobin, 2,324,000 red cells. On March 4, there was 75% hemoglobin and 3444,000 red cells. On December 4, 1902, there was 83%, hemoglobin and 3,800,000 red cells.

On April 14, 1903, there was 80% hemoglobin and 3432,000 red cells.

The blood picture today showed a deficiency in the red cells. The patient was in perfectly good condition now, nearly 6 years after tie had his primary pernicious anemia." - in "Medical Record", 1905.

Colonic Irrigation in the Treatment of Pernicious Anaemia

"Austin W. Hollis and Norman E. Ditman describe various experiments that have been carried on in the search for knowledge concerning pernicious anaemia. Herter has recently demonstrated the more or less constant presence of certain forms of anaerobic bacteria in the contents of the large intestine. These bacteria can break down proteids into a form which is used by other putrefactive bacteria, among which are the indol forming organisms.

Indol occurs quite uniformly in excess in pernicious anaemia. Indol produces toxic symptoms in animals whose oxidizing capacity has been decreased.

The anaerobic bacteria are limited to the large intestine, where they can be reached by therapeutic measures

introduced into the lower end of the gastrointestinal canal. Irrigation of or local applications in the colon are suggested as a means for their removal.

The clinical results of the treatment by colon irrigation in these cases are very happy. By this means lie found that oxygen occurred in the intestinal canal as far down as the ileocecal valve, but no further. As these anaerobic bacteria are confined for their place of residence to regions free from oxygen, they must be limited to the large intestine where they are within reach of therapeutic measures directed from the lower end of the gastrointestinal canal; hence, the possibility which he affirmed of removing them by irrigation of or local applications in the colon.

Upon his suggestion two cases of undoubted pernicious anemia were treated in this way in the wards of St. Luke's Hospital in New York, and the results obtained in these cases by means of Colon Irrigation were sufficiently noteworthy to merit permanent record. Since leaving the hospital this man has had daily colon irrigations, and eight months after his discharge from the hospital his hemoglobin was still 85%, and the red blood cells 3,800,000. His health remained perfect.

Colon Irrigations were commenced. The trace of indican disappeared. The albumin was diminished to a faint trace in 4 days, and disappeared in a week. Reference to the accompanying chart will show clearly the marked improvement in this man's blood condition. On the 5th of November 1906 he left the hospital feels perfectly well. One month later he had gained 4.5 kilos in weight and his blood condition continued to improve as shown by the chart.

That these cases have been permanently cured it is impossible at this time to say. It is evident, however, that since the introduction of the treatment by Colon Irrigation in these cases more marked improvement was obtained than by any other method employed.

It is also evident that the fact that two very severe cases of anaemia of the pernicious type have been restored to perfect health and a normal blood condition by high colon irrigations, would seem to imply, for these cases at least, the

absorption of some toxic substance from the bowel as a causative agent." - Dr Austin W. Hollis, MD and Dr Norman E. Ditman, MD in "Medical Record", Vol. 71, 1907.

Angina Pectoris

"In a heart muscle in which the function of tonicity is impaired these symptoms of angina pectoris do not usually occur, even if the function of contractility is embarrassed. In order then to have these reflex phenomena occur, clearly, there must be an overstimulation of the function of tonicity as well as of the function of contractility. As a proof of this I will cite you a case taken from my files, in which repeated attacks of angina pectoris occurred, until the function of tonicity became impaired, after which they became greatly modified and finally ceased altogether.

The impairment of the function of tonicity was easily recognized by the development of a systolic murmur at the apex, evidently a relative mitral insufficiency and a slight displacement of the cardiac apex downward and to the left. From that time on, which is 6 years now, the patient has been practically free from the intense pains in his chest. In the beginning of this patient's trouble, walking one block, if it was up hill, or the slightest indiscretion in eating, would bring on an attack. Proper dieting, with physical and mental rest and high colonic irrigations, produced the good results obtained in this case." - Dr W. J. Pulley, MD in"The Reflex or Protective Phenomena of Angina Pectoris", New York Medical Journal, 8 November, 1913.

Anthelmintic Treatment for Infestations of Parasitic Worms

"At the end of 8 hours if the bowels have not moved the patient should be given another dose of salts and an enema, and measures should be taken at this time to insure purgation. Purgation is the most important of the general

measures for the safety of the patient and must be secured by whatever measures are necessary if serious disturbances and deaths are to be avoided. A rather large proportion of all patients treated with any anthelmintic will complain of some or all of the following symptoms: Headache, dizziness, or nausea.

These symptoms are due in part to the anthelmintic and in part to the purgative, and it is astonishing how rapidly these things clear up after a bowel movement. It is a reflection on the physician when a patient dies after the administration of an anthelmintic with a history of no bowel movement after many hours and no record of a serious attempt to secure purgation." - Maurice C. Hall, Chief, Zoological Division, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, DC, in "A lecture given at the Naval Medical School", 24 January, 1930.

Arthritis, Treatment of

"Colonic Irrigation: Colonic irrigation enables mechanical stimulation of the lower intestinal tract and combating colonic stasis by occasional thorough flushing and evacuation. Some clinicians consider the intestinal tract a major secondary focus of infection. Applied for definite indications and under responsible direction, colonic irrigation is a useful adjunct in treatment of arthritic patients in whom the gastro-intestinal tract appears to be the cause of some of the symptoms." - Dr Richard Kovács, MD in "Electrotherapy and Light Therapy", 1945.

> *"The writer on the other hand has had excellent results in a case of rheumatoid arthritis following the use of sour milks, lactic acid bacilli and intestinal irrigation, as to disappearance of pain, and diminution of swelling—and more ready ability to move the joints. A number of observers have noted improvement after intestinal*

irrigation." - Dr Robert Coleman Kemp", MD, Professor of Gastro-intestinal Diseases at the Fordham University Medical School in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Asiatic Cholera, Treatment of

"The paper by Dr. Elmer Lee, in the "Medical Record", 17 December 1892, details the results of his experiments in the treatment of Asiatic cholera at St. Petersburg last year, and advocates the intestinal irrigation for the cure of the disease.

It is impossible to read this able article and not be convinced that the methods advanced are in the highest degree scientific and logical.

Dr. Lee reports very satisfactory results from a thorough irrigation of the intestines with warm water containing a small proportion of liquid soap made of vegetable oil, potash, and glycerine, in connection with peroxide of hydrogen (medicinal) as an internal treatment.

By following Dr. Lee's system of irrigation of the intestinal canal, with a large amount of the above solution (2 or 3 gallons), the whole amount of infected matter which is present in the intestinal canal is mechanically carried away; after which, by a second thorough irrigation of the intestinal tract with 1 or 2 gallons of warm water containing 4% of peroxide of hydrogen (medicinal), any comma-bacilli which may remain in the intestinal tract will be readily destroyed.

It is my opinion that this treatment will prove to be "par excellence," the treatment for cholera nostras, dysentery, typhus and typhoid-fever." - Dr T. P. Corbally, AM, MD in "The Doctor of Hygiene", New York, April, 1893.

Appendicitis, Treatment of

"Let us all remember that every case of abdominal pain, cramps or pain in the intestines is a possible appendicitis; that any history of a previous typhoid fever, inflammation and congestion of the bowels or ovaries, and peritonitis is a possibly unrecognised appendicitis, and that every victim of indigestion, particularly intestinal. is on the verge of appendiceal inflammation at all times, particularly if he eats to excess or goes on a debauch. Let us keep in mind too that the victim of la grippe, the uric acid diathesis, and he who worships at the shrine of the "Three L's: Laziness, Luxury and Lust, is prone to the disease under consideration as well as the athlete. Appendicitis has been classified as catarrhal, ulcerative and perforative, but it is well to realize that an attack is inflammation of the appendix and it is impossible to draw sharp lines of distinction.

We physicians must learn, and we must teach the fact to the laity, that an attack of indigestion, cholera morbus, diarrhea, accompanied by pain in the abdomen, intestinal cramps, etc., must be treated intelligently along the lines of helping Nature to get rid of offending material, always recognizing pain as Nature's signal that something is wrong, and that it is our duty not to cover up and mask the sign but to coax and coddle it by simple means, securing its help in locating its cause.

As evidencing the value of Colon Lavage, Bidder, Schmidt, Zolesky, Rosenberg, Krull, Lowenthal, Barlura and others have clinically reported that the flow of bile, urea and, indeed, of all the secretions, is greatly increased. The eminent and painstaking specialist in gastro-intestinal disease, Dr. Fenton B. Turck, of Chicago, after numerous careful experiments and laborious effort in the treatment of the abdominal viscera through the colon in a large number of patients, has proven that the high-up introduction of water of a temperature of 44 C., owing probably to the favourable arrangement of the nervous mechanism and the reflexes of the colon, into the colon, increases the blood-

pressure; the kidneys are stimulated, elimination of urea almost uniformly doubled, hepatic function increased, greatly increased leucocytosis induced, all the effects resulting in a general accelerated metabolism, oxidation and elimination; in short, the result is general cell activity.

If now repeated, large high-up enemas should be given, one-half gallon, more or less, of hot water at 38 C.; there will be a pronounced peristaltic wave of all down the line, and irritating matters, undigested food, ptomains, etc., will be freely carried out, and whether we have a case of appendiceal trouble, beginning typhoid fever or what not, our patient is in better shape. A colon and ileum loaded with faecal matter is a good riddance, no matter what we have before us. Lavage of the colon or free flushing will start the current from the stomach downward.

In discussing appendicitis we must rule out of consideration those cases of typhlitis stercoralis, where there is only a mild degree of irritation or inflammation of the caecum associated with lodgement of faeces, whose subjects are usually constipated, and cured within a few days by intestinal flushing, quiet and proper diet." - Dr I. N. Love, MD Ex-president Mississippi Valley Medical Association; President American Medical Editors Association, in "Appendicitis from a Medical Stand Point", JAMA, Vol.34, 1900.

"Over-eating and improper diet are probably by far the most fruitful causes, affecting as they do all of the intestines, the stomach, the kidneys, the liver and the heart.

The fermentation and decomposition of meat in the bowels doubt less has very much to do with effete matter, containing much toxic material, and seems to be the most prolific cause of appendicitis.

A rational menu, conscientiously followed, is a practical guarantee of immunity from a vast category of the dreaded ills that afflict mankind, as 99% are caused by improper diet.

Symptoms

Some of the most common and prominent are the following:

1. Sudden pain in the right side of the abdomen.
2. Fever, frequently of a moderate or high grade.
3. Gastro-intestinal disturbances, such as nausea, vomiting and constipation.
4. Tenderness, sensitiveness and pain in the region of the appendix, and usually a distention over the parts and great irritability of the bladder.

The Treatment and Cure

1. Appendicitis has its origin in poisons generated in the blind pouch, or beginning of the ascending colon, occasioned by decomposing substances within, which then reach the appendix, causing inflammation. Were the intestines regularly and thoroughly cleansed, this could not occur. Once acquired, appendicitis must be eliminated from the body or complete prostration and death will inevitably follow.
2. It was long thought that drugs and surgery were the only recourse; but it has within a very few years been clearly demonstrated that there is a safe and rational method for treating appendicitis, offering no harm to the patient, which the author of this book originated and thoroughly tested in 250 cases. In each instance a complete and permanent cure was effected.

Specific Treatment

First, thoroughly cleanse the colon. This washing out of the colon may be done in the following manner:

1. Use a bulb syringe. (This will be described further on).
2. Have the patient stand erect near a table, on which is placed a vessel of water. Lukewarm water is preferable for a week or ten days as the patient cannot become accustomed

to the cold water in a shorter length of time.

3. Place the nozzle of the syringe in the rectum and the other end in the water. The operator must stand immediately back of the patient, placing the left hand on that of the patient.

4. Place the left hand over the sigmoid flexor; do not make pressure. This is done to direct the mind of the patient to dwell on that part of the bowel.

5. Now contract the bowel as much as possible and do not permit it to slacken any, in the least.

6. Keep the mind constantly on the descending colon.

7. Compress the bulb of the syringe sufficiently to inject the water into the colon and at the same time fill the bulb again.

8. Breathe short and rapid, so that the abdominal muscles will not be disturbed enough to check the flow of water from the ascending colon.

9. Continue pumping water into the colon until three pints have been forced into the bowel. If the contraction has been kept up, the water will have been carried around to the caecal valve and blind pouch; this will consume about 2 minutes. In three to seven minutes the water will stimulate the peristaltic action of the bowel, causing it to expel its contents, leaving absolutely nothing in the bowel. All effete matter is carried away. This has the same effect that a very large dose of salts would have; but the action is quicker and even more thorough and much less pain is caused, and the patient feels toned up instead of depressed, as is invariably the case when epsom salts are taken. This will clean the blind pouch of hardened faeces, which oil or salts will not do. The entire treatment requires only from 10 to 15 minutes.

10. When one wishes to hasten the action of the water, the hands should be placed close together, then using the tips of the fingers, stroke over the region of the colon, from right to left, beginning just a little below the right of the umbilicus, making firm pressure over the ascending colon until the point is reached where the colon becomes the transverse colon. Then flatten both hands on the abdomen and continue across to where it becomes the descending colon.

11. Now use the thumbs only, and continue the stroking down and over the sigmoid flexor. Repeat this stroking every 2 or 3 minutes in succession; wait 2 or 3 minutes and then repeat the stroking.

12. After throwing in the water, one can place the right hand over the ascending colon and make strong contraction; then bending slightly forward and to the right, churn the bowels with the tips of the fingers of both hands, over and slightly below the region of the colon. This latter is done only in cases of extreme constipation, where there is reason to believe there are hardened faeces in the blind pouch; it will cause the bowel to empty itself immediately. But it is preferable to wait three minutes before proceeding to the churning process, so as to allow the contents of the blind pouch to become softened, thus facilitating expulsion. Then inject into the bowels one pint of the following mixture: Water, 250ml; fresh red apple juice, 75ml; fresh pressed grape-juice, 75ml. This is done to tone the bowels and to destroy all germs that may be present.

This is the whole secret of curing appendicitis without resort to drugs or surgery. This treatment should be given every other day, and every alternate day the bowels should be thoroughly flushed with plain water. This treatment should be continued until all of the symptoms have been removed. The first four days the patient should be washed out daily, unless something should contraindicate such frequency. After the first 4 days, wash out the bowel every other day, unless local conditions are such as to indicate that more frequent treatments are necessary. In all of the treatments the stroking should be very gentle.

13. Manipulate gently over region of caecal valve, lower part of ascending colon, blind pouch and the ileum every 3 or 4 hours. This helps to restore circulation of the affected organs, and is very essential in treating successfully every case of appendicitis and typhoid fever.

14. During the local treatment, the patient should be given a hot air vapour bath daily, until all danger is past.

15. If there is marked constipation, with hardened and packed faeces in the colon, soap should be added to the

water. This will have an effect in softening the hardened excrement, and will cause a more thorough cleansing than either salts or oils will produce.

16. The following dietary should be used while the treatment of appendicitis is progressing. This dietary is of great importance and should be strictly adhered to without any variation.

Fruit Juices Juice (do not mix with other foods, allow 1 hour and 30 minutes before taking other foods).

Horlick's Malted Milk.

Buttermilk.

10 glasses pure spring water each day.

During the first 5 days the patient should use (all day) only either (not mixed) red apple, orange or red grape juices, as nourishment, and these should be freshly extracted from the fruit." - Dr B. Curtis Miller, MD, Surgeon to Western Maryland Hospital, and Dr Cumberland, MD, in "The New and Scientific Treatment of Chronic Diseases", 1914.

"In Bourget's experience intestinal lavage has a rapid and remarkable effect on the pain of perityphlitis (appendicitis). The colic and pain on pressure diminish progressively and the swelling diminishes in size and consistency. The symptoms of general intoxication cease gradually, in the majority of cases within the first 24 hours. The temperature often falls from 102° or 104° F to 98° or 100.4° F after the first lavage, and remains at normal after the third or fourth. The duration of the treatment by lavage is from 2 to 10 days, usually they are unnecessary after the 5 or 6 day, and are replaced by mild purgatives, such as castor oil or the saline formula given above. The author has seen many cases definitely cured by this mode of treatment, and considers it preferable in many cases to immediate operation." - Dr L. F. Appleman, MD in "American Medicine", 1902.

Appendicitis

(Synonyms: Inflammation of the Vermiform Appendix; Perityphlitis; Appendicular Inflammation: Scolecoiditis)

"Inflammatory conditions involving the right iliac region have been called by a variety of names; Iliac phlegmon; typhlitis (inflammation of the cecum); perityphlitis (inflammation of the covering of the cecum); and paratyphlitis (inflammation of the retroperitoneal tissue behind the cecum). Though typhlitis was considered to be the cause of most of the inflammations in the right iliac fossa, modern investigation has demon strated that appendicitis is the chief factor. Constipation as a factor in the production of appendicitis is a question of dispute. Fitz and Fowler believed that in the majority of patients the bowels acted regularly previous to the attack, and Riegel holds that constipation and diarrhea have no bearing on the subject.

Though unquestionably many patients suffering from constipation never suffer from appendicitis, there is one type of case in which it may be a factor, namely, patients in whom there is a tendency to fecal accumulation in the caput coli and lower ileum, with resulting appendix symptoms, probably from circulatory interference, pressure, blocking of the appendix opening, and catarrh secondary to a slight catarrh of the cecum. I have seen several such cases in which there were the typical symptoms, which rapidly subsided after thorough bowel irrigation, ice-bag, and later cathartics, and subsequent treatment of the constipation, with no subsequent attacks during 8 or 10 years observation.

To this same class belong the rare type of typhlitis due to stercoral ulcer to which McWilliams refers. Dietetic indiscretions, in so far as they are productive of intestinal putrefaction or fermentation with increased bacterial activity, might be a factor in producing an acute attack in an appendix already damaged. Kelly and Deaver hold that disturbances of digestion have an important influence in determining an attack of acute appendicitis. Intestinal catarrh, involving the caput coli, in my own experience has

been the direct cause of the catarrhal type of appendicitis.

Treatment: The medical treatment of acute appendicitis can be summed up very briefly. Absolute rest in bed in the dorsal position. The bowel and urine evacuation should occur with the patient confined to bed. The physician, having made his diagnosis of acute appendicitis, to the exclusion, of course, of general peritonitis, should pursue the following course: All food and even water at first should be prohibited by mouth. Sonnenburg recommends the castor-oil treatment of appendicitis, but the writer believes it dangerous. No cathartic should at this time be given. Thirst can be relieved by rinsing the mouth with cold water, by small rectal injections of 2 to 3 ounces (60.0-90.0) of hot normal salt solution at 40°C to 42°C., or by proctoclysis.

If there is much distention, or if nausea or vomiting, lavage should be carefully performed. In these methods I agree with Ochsner. In the following I differ. If the lavage does not markedly relieve the distention (if such be present), I would then advise the physician to personally gently wash the bowel with tube and funnel, after the method of lavage. Only about a quart of normal saline in all, at 43°C, need be employed, allowing a few ounces to flow in and then siphoning it out. This practically mechanically carries off the gas and has little influence in producing active peristaltic action. A similar technic is employed in acute distention of typhoid fever with active haemorrhage. He should carefully note the patient's temperature, the rapidity and character of the pulse, and the ratio of pulse to temperature. When feasible, I advocate blood examination in every case, though, of course, it is in some cases impossible.

The physician should return to his case in 2 or 3 hours for the purpose of further examination. The ice-bag should be applied to the painful area at the first visit. The pain in almost every case can be controlled by the use of an ice-bag of fight weight and a small amount of ice therein, so arranged, supported by a circle of gauze, that only the sensitive area is touched by it. A thin layer or two of gauze can be placed between the bag and the skin, so no damage can be done by the cold, which should be continuously

applied. The bag can also be suspended from a barrel hoop to take off the weight, but the former method is the simplest. In emergency I have used bits of ice tied up in dress shields or in pieces of rubber tissue as a substitute for the bag.

On the third visit or the one thereafter (all of which visits should be made within a total period of six to eight hours) some definite determination as to the proper course to follow at that specific time can be made. Lavage may again be indicated to relieve distention, or even the special intestinal washing, as previously described. Frequently, however, under abstention from food and drink and the application of ice the tympanites will be markedly relieved and physical examination be comparatively easy. If there is a history of long constipation, and on examination a fecal accumulation can be determined in the caecum, I resort to radical treatment.

Fecal accumulation with gaseous distention is an actual danger by causing pressure on the inflamed appendix.

I always resort in such cases to enema or, preferably, gentle intestinal irrigation once or twice a day every day with normal saline solution, with two tubes or a recurrent tube, using 2 to 3 or 4 quarts at each lavage, only 250ml at a time, at 43° to 46°C, emptying the large intestine mechanically. I have frequently seen the acute symptoms rapidly subside with the above method.

These cases are not so very rare. I agree with Ochsner that lavage is valuable for the distention or for vomiting. If the tympanites, however, is not relieved by the lavage, I believe the funnel method of gentle irrigation of the bowel to be perfectly safe. If faecal accumulation occur later during the attack, a soapsuds enema is indicated." - Dr Robert Coleman Kemp, MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

The Craze for Appendicectomy

"The appendix is a lubricating gland placed at the bottom of the ascending colon for the purpose of speeding up the

intestinal heavy traffic. The intestinal contents, at this part. have lost their fluidity and their coefficient of friction has greatly increased, and in addition the faeces have to climb a very steep, almost vertical incline.

On a priori grounds we would expect Nature to provide additional lubrication here over and above the ordinary mucus of the intestine, and she has risen to the occasion and has evolved the appendix. Many years ago, when the operative treatment of appendicitis was just coming into vogue, I treated some half-dozen cases by the usual incision and drainage, and although they all fortunately recovered, their convalescence was so slow and tedious, complete recovery taking several months, that I determined to adopt a "non-militant" method of treatment.

Reasoning that appendicitis was usually due to blocking of the mouth of the appendix by faecal accumulation, causing distension and inflammation, it followed that the most rational method of treatment was at once to administer saline aperients, and so remove the obstruction. I have never had occasion to regret the adoption of this method, for of the dozens of cases so treated not one has died, and practically all were quite recovered in 2 or, at most, 3 weeks." - Dr Thomas A. Watson, MD in "The British Medical Journal", 1913.

Blood Pressure

"The long list of functional nervous diseases furnishes a fertile field for efficient colonic therapy. In neurasthenia, in particular the most brilliant results have been obtained. When Colonic Therapy, a proper Diet and an exact regimen of living are combined, the results of treatment are so satisfactory that the patient stays within the fold of regular practitioners.

Migraine is another nervous condition in the treatment of which excellent results have been obtained by means of colonic therapy.

In the treatment of high blood pressure, the results of colonic therapy are very impressive. Following a single

treatment, there is a pronounced drop in the systolic blood pressure. To be sure, the blood pressure gradually returns to a higher level after the treatment is discontinued; but systematic colonic treatments combined with dietary restriction furnishes the most successful means of combating hypertension. It is a well recognized fact that many gastric symptoms and phenomena referable to the upper abdomen really have their origin low down in the intestinal tract. These disturbances are really reflex in origin.

An excellent example of this condition of affairs is furnished by the nausea and vomiting occurring in acute appendicitis, and also by the chronic digestive disturbances that take place in consequence of chronic inflammation of the appendix. In fact, it may be stated as a general rule that, when the lower intestinal tract is overloaded with poisons, the upper portion of the alimentary system rebels to the introduction of more food. Consequently many eminent clinicians have adopted the practice of evacuating the putrefied contents of the colon as a means of relieving symptoms referable to the stomach and upper abdomen.

Point of Technic in Colonic Irrigation

The technical details of colonic therapy are sufficiently important to warrant the careful attention of the physician who devotes himself to this line of work. Only when an intelligent medical man gives his best efforts can satisfactory results be obtained from colonic lavage. One point I wish to emphasize is that regardless of the method of treatment many cases of hemorrhoids return after a few years.

I am of the opinion that these cases would not recur if the obstipation and proctocolitis were first treated properly by Colonic Irrigation.

The most important feature in examination of cases in our specialty is the pH of the stool, as brought out by Dr LeRoy in his researches, for by this determination we are able to direct the diet and solutions to use in an exact and scientific manner. The technical details of colonic therapy are sufficiently important to warrant the careful attention of the

physician who devotes himself to this line of work. Only when an intelligent medical man gives his best efforts can satisfactory results be obtained from colonic irrigations.

Conclusions

1. Focal infection from the colon is a vital and much neglected source of systemic disease.

2. The liver normally acts as a buffer against intestinal intoxication, but, when its resisting capacity is exceeded, systemic damage necessarily ensues.

3. Intestinal autointoxication is corrected by scientific colonic therapy as by no other treatment.

4. For the relief of chronic obstipation, Colonic Irrigation is the most successful form of treatment known.

5. Many functional nervous diseases, especially neurasthenia, chronic deforming diseases of the joints, blood dyscrasias, and certain forms of chronic nephritis are materially benefited by colonic therapy. In the control of high blood pressure, systematic colonic treatments in association with dietary restrictions are the most effective forms of treatment yet employed. Symptoms referable to the upper alimentary tract, being often of reflex origin, are in many cases amenable to treatment by colonic irrigation.

6. The proctologist, by adding colonic therapy, and getting the rectum and colon in normal condition, will discover and correct many otherwise obscure rectal conditions, and obtain much better results in his treatment of local rectal pathology.

7. The proper execution of Colonic Therapy requires a close knowledge of the anatomy and physiology of the lower intestinal tract and rectum. Therefore, this work should not be entrusted to those who are ignorant of these

essentials, but performed under the direct supervision of a skilled proctologist."- "American Medicine", Vol.36, 1930.

High Blood Pressure, Treatment of

"Dr Wilbur Blackman, MD in "Charlotte Medical Journal", July, 1918 points out that in the treatment of high blood pressure regularity is of the greatest importance. This applies to eating, drinking, sleeping and even thinking. In heart lesions with dyspnea (shortness of breath) rest in bed is imperative. In kidney lesions elimination is of prime importance.

In autotoxemia a nonproteid diet, preferably an antitoxic buttermilk ration, Colonic Irrigations and skin elimination are indicated: in the case of the overworked man, rest, away from his usual surroundings. Hydrotherapy and the electric light bath are of value. At the Sanatorium heart cases the Nauheim baths are used; for kidney conditions, the sweating packs; in autotoxemia, abdominal fomentations and colonic irrigations; for high nervous tension, the prolonged neutral bath or the wet sheet pack is efficacious; for a labouring heart, intermittent ice applications to the precordium are used." - in "New York Medical Journal", Vol.108, 1918.

Bright's Disease, Treatment of

"Wash out the entire colon, and so eliminate and stop the development of toxic poisons in the abdominal tract, and at the same time stimulate the activities of the liver and stomach and partially flush the kidneys. Arouse the liver and relieve it of its congestion by osteopathic treatment and by drinking an abundance of sour lemonade. Drink very liberally of pure water so as thoroughly to flush the kidneys and aid in dissolving and carrying off the accumulated substances from their tubes.

Take moderate exercise" - Dr B. Curtis Miller, MD,

Surgeon to Western Maryland Hospital, and Dr Cumberland, MD, in "The New and Scientific Treatment of Chronic Diseases", 1914.

The Constitutional Treatment of Bright's Disease

"The scientific therapeutics in renal diseases called for a method of treatment that had for its aim not alone the removal of symptoms, but the elimination of all the etiological factors entering into the production of the pathological lesions. It should also aim to remove the pathological lesions, and bring about as nearly as possible a normal state in the organs implicated.

High Intestinal Irrigations, as carried out by many, and as studied experimentally and physiologically by Kemp, were very beneficial in the treatment of this class of cases.

By this method, toxic substances were eliminated, the flow of urine increased, and the heart strengthened. The speaker said he had seen patients who were apparently in a comatose condition restored to a state of comparative usefulness by this method of treatment. Under proper dietetic, hygienic treatment the majority of patients suffering from renal disease were curable; of those not curable, more were capable of enjoying fairly good health for many years." - Dr. William H. Porter, MD in "Medical Record", 1905.

Bright's Disease

"On 3rd June I906, I was called to see a Mr. H., 18 miles out in the country. "Come quick," said the caller, "he has gone insane." I found a man about 60 years of age, heavy build, nervosanguine temperament. His temperature was 39° C., pulse 65 per minute, respiration 20 per minute. Skin dry, "leathery" and mottled (dirty brownish splotches); semi-stupor, a badly coated tongue and bad breath; urine very scanty and high-colored; abdomen somewhat full and a little sensitive to pressure; the en gorged colon could be easily felt; cold feet, hot head, every organ was greatly oppressed;

heart, lungs, liver, nervous centers, brain, kidneys, stomach, bowels, skin, circulation, all by the "internal and infernal enemy." What that internal enemy was, all true alkaloidal physicians can tell you at a finger snap.

The history

He had acted strangely that morning, talking incoherently and often boisterously, refusing all restraint. He finally lay down and was thought to be asleep, and as the ladies only were at home, they left him alone. About 2 hours after his wife went to his room and he was gone. A search of the premises did not reveal him. About 3 pm some of the "men folks" came home, and they started a search for him and found him a mile out on the prairie, lying on the ground unconscious. He was taken to the house, and at this point I was phoned for. The people told me that this was the "worst spell" of several of like nature that he had had during the past 3 years, and that his family physician and 2 or 3 consultants had pronounced it "recurrent Bright's disease," and that he was sure to have a fatal attack almost any time. His family doctor being absent for a few weeks, and I being an entire stranger to them, made them feel greatly alarmed.

After I had exercised him thoroughly, and had made a bedside analysis of a sample of his fresh urine, the family asked me if there was "any chance for him to live until morning?" and, "are not his kidneys entirely ruined?" and "will he ever come to him self?"

I replied:

"Mr. H. has no serious kidney disease. He will be rational within 12 hours, and will get well if he will do exactly as I direct."

The first thing I did was to order a lot of hot normal-saline solution to be prepared. This was to be followed in 2 hours after the last dose by saline laxative, one tea spoonful in a cup of hot water every 30 minutes until the bowels began to act, which was after the 4th dose. I always take the "saline" with me when I make distant visits. I next gave him a large colonic injection of the now-ready, normal-saline solution, to be repeated as often as it passed; between the

clysters making abdominal massage over the colon. Five injections were given during the night. By 3 A.M., Mr. H. was getting rid of an immense amount of horrible filth.

His kidneys were acting better, his skin getting moist, his heart was "steady" and strong, his breathing was normal and his mind was clearing up fast. In short, the change for the better was so great that the people were puzzled. I then began with the triple sulphocarbolates (intestinal antiseptic), 2 tablets dissolved in a cup of hot water every 2 hours for 10 doses, then every 4 hours until the bowel actions were odourless and the tongue clean and the breath normal. After the bowels were thoroughly emptied, I directed a pint of hot normal saline solution to be thrown well: up into the bowels every hour and retained.

This, after the 5th injection (small enema), brought the kidneys into fine action and also opened up the entire skin. I did not allow him anything to eat, until late that evening, and then gave a glass of rich buttermilk only, every 2 hours. This is one of the finest diuretics you can give in many cases. At the end of 3 days we had his system so thoroughly cleansed that he was getting "hugely hungry" as he expressed it. Mr. H. has been in fine health ever since, leading a very active stockman's life, a longer respite from trouble than he has known for years. Ye Gods! Will our brethren ever awaken to the necessity of searching out the fundamental conditions and ration ally meeting the indications? It can only be done by the means and methods of alkalometry." - Dr Orville H. Westlake, MD in "The American Journal of Clinical Medicine", Vol.15, 1908.

Chronic Colonic Infections, Treatment for

"During the past 5 years, O. Boto Schellberg, RN has given well over 36,000 colonic treatments. The results have been so favourable that I wish to present them to the medical profession. Schellberg has cured many very obstinate cases of intestinal infection and ailments resulting from the absorption of bacterial toxins. He has demonstrated

conclusively the practical value of irrigation and cleansing the large intestine. We, as medical men, know that a large number of chronic pathological conditions are traceable to the absorption of putrefactive elements from the colon. These putrefactive elements are either the bacterial toxins themselves or are formed by the action of bacteria on proteid matter held in the colon.

The infant comes into the world with a sterile gastrointestinal tract. A few days after birth this sterile field becomes a garden spot for many bacteria.

In the baby's gut two processes begin early:

1. Fermentative
2. Putrefactive

The lactic acid fermentative processes should be always in control, but if through faulty diet, carelessness, or impure food supply the butyric acid ferments and putrefactive organisms become predominant good health may be replaced by sickness and disease. As a child develops, the difficulty of keeping the proper healthful balance between the good lactic acid fermentative processes and the evil putrefactive becomes greater. We have with the coming of teeth more difficulty in keeping the oral cavity properly cleansed; foods causing more putrefactive activity in the gut are added to the diet. Metchnikoff and Lane were among the first to trace chronic disturbances to infected or diseased colons accompanied by more or less displacement.

Logical researches have proved that the colon is worthy of its place in our bodies. While many disorders have their origin in the colon, this is due to our misuse of it. Improper diet, overeating, lack of care for the hygiene of the mouth, and an attempt to conform Nature's excretory demands to the conveniences of our daily tasks, are a few of the abuses that combine to make such a burden to the colon that it ceases to function properly. We have resulting colic, flatulence, constipation, hemorrhoids; later, stasis, ptosis, general lack of tone in the intestinal walls, a symptom

complex of non-drainage.

Following, as a result of these disturbances, we have varying gastrointestinal symptoms, autointoxication with the many systemic diseases which follow this condition from the absorption of the bacterial poisons or the bacteria themselves, genitourinary infections from the passage of germs through the overstrained or damaged mucosa of the large intestine through invasion of the lymphatics by the infective bacteria. The colon, a useful organ, is converted by ignorance, carelessness, or disease into a menacing bacterial incubator.

The problem of keeping the colon actively healthy is now receiving much deserved attention. The treatment perfected by Schellberg from his original method has for its fundamental principle the use of lavage by which all parts of the large gut can be reached and cleansed by antiseptic solutions. Following the cleansing and the disinfection of its walls, he has carried the treatment to a cure by adopting Nature's means of preserving the balance of power to the beneficial organisms by planting in the cleaned and sterilized gut pure, healthy cultures of Bacillus bulgaricus and Bacillus acidophilus.

The observation has been that the sigmoid lies most generally in the central line, the normal inclination being to the left side; a few have been found on the right. As a rule, Schellberg begins the irrigation with the patient lying on the left side to gain the slight advantage of gravity. At first the treatments were begun solely for cleansing the gut. As Schellberg followed certain cases, he found that he not only cleansed the gut, but, where there was marked prolapse and displacement, even where the colon had been bound down by adhesions, persistence for a time freed the intestine, made it normally movable as well as relieving the sagging and ptosis. The correction of the sagging and ptosis was to be accomplished by a removal of the abnormal load of faecal matter and by the stimulation of the cleansing. The freeing of the gut from adhesion was not expected, but is forming one of the most gratifying results of this treatment.

The study of conditions within the abdomen on the

operating table and from autopsies teach that intestinal pockets are common in the colon, formed, as we know, when two inflamed surfaces lie close together in the lumen. The exudates from the inflamed surfaces coalesce, consolidate, and form a band of tissue which contracts, pulling the two points together, forming a pouch in the intestine, the blind sacs making perfect bacterial incubators. (To these exudates, Schellberg has given the name intestinal interlining adhesions.)

No cathartic or intestinal antiseptics given by mouth will clean these. Nor will the usual enemas remove the contents of such a pocket. The irritation caused by the bacterial growth in these pouches causes a reaction 0:1 the walls of the intestines, with the throwing out of a serous exudate which later becomes organized, forming the so called adhesion, binding the colon to the abdominal walls or some intra-abdominal structure.

As a result, there is a colon which has not only lost its mobility but has become an incubator for bacteria and a producer of toxic material. He found that by passing the tube over these pockets daily with the stretching of the colon, his solution loosened these interlining adhesions, which were expelled, and at times would break loose some of the external adhesions. Sometimes this happened during the treatment, causing the patient sharp pain. More frequently it came after the lavage. With the opening of the pocket and the removal of the irritating accumulation, the adhesion bands immobilize the organ, atrophy, and give way. He has seen misplaced immobile colons become mobile and resume their normal anatomical position after 10 days of treatment. The parting of the binding adhesion may give the patient a sharp, stabbing pain, which is of short duration. Schellberg has learned that Until the colon is fairly sterile no lasting benefit is to be gained by the planting of the Bacillus bulgaricus or the Bacillus acidophilus.

His method is to wash the colon daily with the antiseptic solution until the smears show a low bacterial count in the gut. The desired sterile condition is achieved in ten days with the average case. Streptococcus and staphylococcus

organisms must be reduced to the minimum before planting. Not infrequently a case is met in which the antiseptic solution causes such an irritation that one must stop the irrigation before the desired cleanliness is obtained. Into these irritable colons Schellberg introduces a 1%, solution of dextrose, and a planting of twenty to 30 billion acidophilus and bulgaricus is made as high up in the gut as possible. After 3 or 4 of these daily plantings the intestine is usually quieted so that the disinfection can be resumed.

A few cases which had apparently been in condition for the permanent planting later showed increased or renewed streptococci and staphylococci after 2 weeks. In such, he disregarded his plants and renewed the disinfection. With the acidophilus on the increase with the absence of streptococcus and staphylococcus organisms, a chance of recurrence is not great.

With ordinary care and diet, patients have shown a vigorous growth of acidophilus 2 years after this treatment. For planting, Schellberg uses four ounces of a 1%, dextrose solution, containing 20 to 30 billion acidophilus and bulgaricus, injecting this into the ascending colon or caecum. The temperature of this solution should be 50°C, a planting made daily for from four to seven days, and then every second day for 4 or 5 treatments. The patient is placed on the right side for the planting. Before injecting the plant, be sure that all the solution used to introduce the tube has been expelled and that peristaltic action has become quiet.

Following rectal plant the patient should remain quiet, lying on the right side for 30 minutes after the planting. After colonic treatment is discontinued the patient is instructed to continue taking active liquid cultures of Bacillus bulgaricus by the mouth. In unbalanced states of thyroid secretion the careful physician has long recognized the necessity of carefully studying his patient for some foci of infection as a basic cause for, not only conditions of hypothyroidism, but hyperthyroidism as well. In cases of deficiency of thyroid secretion, or hypothyroidism, attended by pallor, languor, a general feeling of muscular weakness, and a general lowering of all body function, with

enlargement of the gland, some very interesting observations have been made. Some physicians have the teeth and tonsils carefully gone over before beginning the use of thyroid extract in cases of hypothyroidism, and some have even gone further and, realizing that the intestines might be the possible carrier of the infection, have attempted to clean them out by brisk purging. Often discouraging failures have followed the use of thyroid extract for reasons which Schellberg has been able to demonstrate in an interesting series of cases.

When patients presented themselves with typical symptoms of thyroid deficiency, coupled with distinct enlargement of the thyroid, the colon was thoroughly cleaned out and a healthy growth of Bacillus bulgaricus and Bacillus acidophilus implanted, and no further treatment was found necessary.

The use of thyroid extract was not found necessary, because as soon as this source of infection had been removed the symptoms disappeared, and a decided reduction in the enlarged thyroid promptly followed. This emphasizes the importance in all unbalanced states of thyroid secretion first to clean out the colon thoroughly by the methods followed in this treatment, never failing, of course, to give attention to other possible regions where foci of infection might be located. Schellberg has been able to demonstrate that many of the debilitated patients show an excessive growth of staphylococcus and streptococcus in the colon. Schellberg also states that weakness and debility are not contraindications for his treatment.

On the contrary, he has found such patients to be improved from the very beginning of the treatment. The amount of water absorbed by patients during lavage is marvelous. This water is rapidly eliminated by the kidneys; patients urinate quantities immediately following the treatment.

It has been found of decided benefit to patients suffering from pyelitis and certain forms of cystitis, because by this means large doses of urinary antiseptics can be given without the debilitating effect they have on the patient if

given in any other manner. As an example, 380 grains of sodium salicylate can be thrown into the cecum at one dose. The patient will say that he can taste it within 15 minutes, but he will be entirely free from the usual disagreeable symptoms a large dose by mouth would produce. Schellberg has found that when a hot solution, given from the second irrigator at a temperature of 52°C, was thrown into the cecum, when the ileocecal valve was relaxed, some of the hot solution may by backward peristalsis be carried into the ileum.

This at times will produce a chill which does not as a rule last long, and no serious consequences follow. Finally, physicians must remember that the colon is a movable organ. It is not fixed, as is generally supposed. A loop, twist, or kink of the colon may or may not be due to an adhesion, as more often the colon pulls itself into loops and as easily uncoils, sometimes due to an extreme peristaltic action and sometimes in trying to expel masses of faeces." - Dr William H. Galland, MD, FACS in "New York Medical Journal", 20 July 1921.

Chronic Intestinal Indigestion, Treatment of

"It seems almost needless to say that all foods of recognized indigestibility should be permanently excluded and that the pernicious habit of eating between meals should be forbidden. Tea and coffee and other unnecessary and disturbing substances must follow the same course. The use of drugs in this condition represents the least important part of the treatment. There is no specific, and, therefore, whatever drugs are given must be directed to the relief of certain symptoms.

We have used the so-called intestinal antiseptics for the control of putrefactive processes, but with entirely negative results. In the beginning of treatment and occasionally thereafter, a course of cathartics followed by Colonic Irrigation will do much to relieve this feature of the disease. The intestinal washings seem especially effective in the cases

with loose, watery, foul-smelling stools.

For the frequently associated constipation, one need rarely resort to the use of drugs. The free use of water on rising, evacuation of the bowels immediately after the morning meal, together with properly applied abdominal massage, and later the free use of green vegetables and laxative fruits, will invariably control this symptom. As a temporary measure, we prefer olive oil enemas and non-irritant suppositories to laxative drugs. In the emaciated patients with marked abdominal distention, temporary mechanical support to the abdominal wall, together with muscle exercises directed to improvement in the tone of the abdominal muscles will contribute to the relief of constipation.

The bitter tonics, which are given more for their toning effect on the gastric mucosa than for their general effect, are the only tonics which are indicated. In short, if the conditions which are active in the causation of the disease can be controlled in the manner indicated under the preceding headings, the clinical picture will usually clear up without the necessity of drugs." - Dr Samuel M. Hamill, MD & Dr Kenneth D. Blackfan, MD in "The Journal of the American Medical Association", Vol. 55, 1910.

Chronic Intestinal Putrefaction, Treatment of

"Combined Saccharobutyric and Indolic Type: The Bacillus aerogenes capsulatus is also able to break down proteins into a suitable form for the use of other putrefactive bacteria, among which are the indol-forming organisms. This last form, associated with the excessive production of indol, is the most severe type, and these cases are subject to auto-intoxication, depressive mental conditions, and diminution in muscular power (muscle fatigue), according to Herter (Herter, Bacterial Infections of the Digestive Tract).

The results of intestinal irrigation in such cases have been favorably reported by Hollis (Med. Record, Feb. 2, 1907) and Ditman, with marked improvement in the hemoglobin and

red cells. Arthritis deformans (A Preliminary Report on the Relation of Albuminous Putrefaction in the Intestines to Arthritis Deformans, by Andrews and Hoke, American Journal of Orthopedic Surgery, July, 1907; also Cornwall, Med. Record, 1 April 1911) has recently been imputed to putrefactive changes in the intestinal canal.

In one case excellent results were secured by the author by enteroclysis and fermented milks, no medication; the swelling in the joints rapidly subsiding." Dr Robert Coleman Kemp", MD, Professor of Gastro-intestinal Diseases at the Fordham University Medical School in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Chronic Nephritis, Treatment of

Types: Chronic parenchymatous nephritis.
Chronic interstitial nephritis.
Chronic Parenchymatous Nephritis

"**Etiology:** Comparatively rare at any age of childhood, more common late. It occurs more often as sequel to the acute nephritis than as a primary condition. Prolonged sepsis, alcoholism, congenital syphilis, malaria, chronic gastrointestinal inflammations, etc., are mentioned as causes.

Pathology: This is essentially the same as in adults. There is an enlargement of the kidneys due to new connective tissue, and they are white and nodular in appearance.

Treatment: The bowels should be carefully watched. Occasional purgation is indicated with irrigation of the colon and warm baths; water should be given freely." - Dr Henry Enos Tuley, MD in "The Diseases of the Child", 1913.

Cholera Infantum, (Acute Noncontagious Intestinal Disturbance) Treatment of

"A remedial measure carried out with great success in cities in the treatment of Cholera Infantum is the use of irrigation of the bowels, or rather washing out of the colon. This is accomplished by the use of the solution named in the articles on Cholera and Enteroclysis." - Dr Hobart Amory Hare, MD in "A Text-book of Practical Therapeutics", 1922.

Complete Bile Obstruction

"It is more difficult to determine the advisable treatment when there is complete obstruction of the bile and when coma supervenes, steadily deepening until death will surely result, if relief is not afforded. As a simple mechanical condition, it seems that mechanical relief is indicated, and the surgeon should cut down and remove the obstruction to the discharge of bile.

But this condition has been found perilous in that haemorrhagic oozing is apt to carry off the patient. Unless atropine proves capable of restraining this form of haemorrhage, as it does nearly every other form, there is no known means of meeting the difficulty. Quite empirically it has been found that cold enemas have a remarkable influence in removing biliary obstructions and restoring the bile to the stools. Possibly this is due to a stimulation of peristalsis that extends to the bile ducts, forcing out mucous plugs and inspissated secretions; but the fact remains, whether we can explain it or not.

For temporary obstructions we may utilize the method known as "blood-washing," abstracting small quantities of blood and injecting equal quantities of normal saline solution. By this the toxic content of the circulation is reduced, if the patient can stand the loss of blood. A better but slower way is to inject into the rectum half pints of saturated salt solution, cold, which quickly induces exosmosis and rids the blood of notable quantities of toxins without deterioration." - Dr W. F. Waugh, MD in "The American Journal of Clinical Medicine", Vol.18, 1911.

Consumption Wasting Disease, especially Pulmonary Tuberculosis, Treatment of

"**Treatment:** Internal ablutions

(a) Begin the treatment by clearing the system of all accumulated waste substances, so as to eliminate the toxic poisons.

(b) This is done by Flushing the Colon.

(c) This should be done twice a day, with cold, spring water. It will not only cleanse, but it will also give tonicity to the bowels, the stomach, the liver, the kidneys and the nerves.

Give Osteopathic Treatment to the entire body once a day. Have fine music; 3 or 4 times a day. Have congenial company for the patient and strive to make him cheerful, hopeful and expectant. A pessimistic state of mind will be very harmful. Follow a Healthy Diet." - Dr B. Curtis Miller, MD, Surgeon to Western Maryland Hospital, and Dr Cumberland, MD, in "The New and Scientific Treatment of Chronic Diseases", 1914.

Cardiovascular Disease

"Dr W. D. Stroud, MD (Physical Therapy in Cardiovascular Disease, in Principles and Practice of Physical Therapy, 1932) in speaking of Colonic Lavage in Cardiovascular Diseases, said:

> *"Since improper intestinal elimination is so common, and since gastro-intestinal symptoms are among the first to appear in the presence of cardiovascular disease, it seems logical that this form of treatment should be of definite value."*

Weisenburg and Alpers (Physical Therapy in Nervous Diseases, in Principles and Practice of Physical Therapy, 1932)wrote:

> *"High Colonic Irrigations are of value in some cases of toxic myelitis."*

These two observations are based on a consideration of colonic irrigation as a means of producing elimination." - Dr Frank H. Krusen, MD, in "Handbook of Physical Medicine", American Medical Association, 1945.

Acute Catarrh

"Involvement of the small intestine alone is more uncommon, and is usually associated with gastritis. I believe in acute cases the involvement of the small intestine is a more frequent occurrence than some suppose; though the intensity of the inflammation may be greater in one portion of it, and in addition in some cases there may be an especially severe inflammation in the colon.

Some believe the large intestine alone is most frequently involved. This is more so in chronic cases. In the rectum local involvement is quite frequent. Acute catarrh of the caput coli, due to faecal accumulation, at times occurs, and this must be differentiated from appendicitis. The faecal tumour can be generally discovered by the doughy feel on palpation.

The acute symptoms subside rapidly under intestinal irrigation and catharsis. When there are flatulence and indicanuria. Colonic irrigation once or twice a day is of great importance. In referring to the cases of duodenitis with jaundice. The writer always uses these methods. High enemata or irrigation with hot normal salt solution are of value. Occasionally cold enemata may be used. The sour milks are, moreover, of great value." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Constipation, Treatment of

"We hardly need to speak about this after all that has been said. You should know by this time that "flushing the colon" relieves the effects of the constipation at once. Now, when this is done, diet, exercise, muscle-rolling of the abdomen and regular habits, remove the cause and cure the disease." - Dr W. E. Forest, MD in "The New Method in Certain Chronic Diseases", 1897.

Chronic Obstruction through Faecal Accumulation

"This is more common in females and usually in our older patients. The history is of habitual constipation. At times large amounts of fecal matter are voided by enema. Scybalae are frequently present. Rectal examination may show impaction. There are digestive disturbances, flatulence, loss of appetite, eructation, fetid breath, headache, dizziness and symptoms of auto-intoxication; there may be oppression in breathing from distention, an unhealthy appearance of the skin, and a foul tongue.

There may be pains in the thighs, legs, and genitals due to pressure on the lumbar or sacral nerves. The patient may be very neurasthenic. Distention and gurgling may occur. There are colicky pains, but usually they are not severe. If untreated, the condition may become worse, the constipation increases, and all the symptoms of chronic or even of acute obstruction develop, as already described under Fecal Obstruction. The vomiting may even become feculent.

Harris (JAMA, 8 March 1913) however reports a case of fecal impaction in the ileum for 53 days with recovery. Palpation shows the presence of a tumor frequently in the colon, especially in the cecum, sigmoid, or other flexures. It may be hard and uneven, and will often "pit" on pressure. It is not painful on pressure, as a rule. Rectal examination generally shows the presence of scybalae. I have treated a

case in which apparently nearly the entire abdomen was occupied by the fecal tumor. Operation for "tumor" had been advised. As a result of 80 bowel movements in one week the tumor disappeared. The patient had had no bowel action for 3 weeks.

Enemata, and especially recurrent Rectal Irrigation, and later, catharsis will reduce the size of the tumor. I have seen cases in which acute flexions or angulations of the sigmoid and colon have been factors in the production of this condition. They are well described by the late J. P. Tuttle (N.Y. Med. Jour., etc., 14 Mar. 1908). Gant has also demonstrated that prolapse of the sigmoid flexure is a cause, and relief has been secured by suspension of the sigmoid. Fresh fruit juices are valuable, and the administration of a glass of water on rising is of service.

Bowels

The bowels must be moved every day. Injections of soap suds enemata of medium size, not over 250ml, with the hips elevated; Kussmaul's method of oil injection, 500ml or more, being retained over night; or the addition of olive oil to the enema, mild cathartics, such as cascara, rhubarb, syrup of figs.

For Colic Attack and Peristaltic Movements

Hot applications to the abdomen are indicated and a recurrent irrigation of normal saline solution at 46 to 48°C is of value, to be given for ten to 20 minutes. The latter removes gas and clears the bowels. Enemata also can be administered.

Lavage is of special value in temporarily allaying symptoms if the stenosis is in the small intestine. If there is chronic fecal impaction, our first efforts should always be directed from below.

Hardened scybalae should be removed from the rectum by the finger, oil injections, and, later, by soapsuds enemata and recurrent rectal irrigations. Olive oil can be given by mouth." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Treatment of Diarrhoea

"The plan of "bold starvation" for 24 to 48 hours is universally commended. White of egg: is not indicated with constitutional symptoms, nor when the stools are putrid or mucous. Meat-juice: is one of the most valuable of the albuminons foods, and is very easy of digestion. It may often be given in chronic cases, when other albuminous foods disagree.

Medicinal Treatment

The tendency has for some time been toward the use of fewer drugs and smaller doses, and it has been especially marked during the last year. Many writers have abandoned the use of most of the drugs brought forward during the past few years. Some of the disinfectant drugs are still used, but their administration with the idea of disinfecting the alimentary canal has been abandoned, to the decided advantage of the patients.

While a few writers rely upon the regulation of the diet and mechanical measures, to the exclusion of all drugs, the majority are by no means ready to follow their example. The consensus of opinion seems to be that there are drugs of decided value in the management of these diseases; yet there is little tendency to attribute marvellous results to any one plan of treatment, or to any one medicinal agent.

Irrigation of the Colon

There is a tendency toward the more frequent and thorough employment of mechanical measures. Irrigation of the Colon, is coming into more general use, both in hospital and private practice; it is noticeable that it is usually employed as an adjuvant to other treatment." - in "Annual of the Universal Medical Sciences", 1891.

"With dyspeptic and stercoral diarrheas thorough removal of the sources of irritation are indicated.

Intestinal irrigation is indicated in these types." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Diverticulitis

"**Inflammatory Lesions on the Right Side of the Abdomen:** Diverticula may sometimes occur throughout the colon and are found in the cecum. Taylor and Lakin report perforation of a diverticulum, inches from the cecum. This possibility must always be considered; i.e., in some cases which may simulate an inflamed appendix, the cause may be a diverticulum.

Diagnosis: To recapitulate; Diverticulitis occurs usually in persons over 35 years of age suffering from constipation and of obese habit. The site of pain about corresponds on the left side to that of appendicitis on the right. Muscular rigidity, especially of the left rectus, is present. There is tenderness on pressure in the left iliac fossa. Tumor may or may not be present. In suppurative cases there may be chills. Leukocytosis is present. The increase in the polynuclears and hyperinosis are of importance for diagnosis. The various types have been described; among the most common are acute peritonitis, resulting from perforation; local abscess, which may break into some viscus, as the bladder, or which must be opened; acute or chronic obstruction, resulting from stenosis of the sigmoid from peridiverticulitis; chronic tumours, simulating carcinoma; and milder cases, with local pain, tenderness, constipation; and a local tumour, which symptoms gradually subside under treatment.

Treatment: The acute cases should receive the same treatment as acute appendicitis. In mild cases the bowel should be emptied by enema; liquid diet, preferably broths and gruels; ice-bag continuously applied; absolute rest in bed. Subsequent attention, after recovery, should be directed to the careful regulation of the bowels by diet. Intestinal irrigation and high olive oil injections also are of value. Cases of chronic stenosis may be temporarily treated as

such. Indications for operation are the same as in appendicitis. Acute obstruction, peritonitis, and abscess require immediate operation. Chronic obstruction may require resection. Appropriate operative procedures are necessary for the complications described." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Dysentery

"Treatment: Sporadic dysentery is a self-limited disease, and in the great majority of cases would end in recovery without medicinal treatment. Enemas of cold water are often grateful." - in "A Treatise on the Principles and Practice of Medicine", 1894.

"**Dysentery. Epidemics:** An epidemic among the French troops at Luneville in July and August, 1889, is minutely described by Archintre (Archives de medecine et de pharmacie militaires, Paris, August). Typhoid fever, measles, and scarlet fever had prevailed during the preceding winter and spring. The onset was sudden, it extended rapidly, and lasted 55 days without interruption; no effort to arrest it had any success. The regiment was moved on 5th August to Corcieux, in the Vosges, but the epidemic lasted until the 21st, although all the conditions of air, soil, water, and lodging were completely changed. Out of 619 men, 186 (30%) were ill; 16%, of these were young soldiers; 4%, had long been in the ranks.

Treatment

The vexed question of the treatment of dysentery has received no great amount of new light in the past year. The older methods are notoriously inadequate, being nothing more than the administration, by the mouth, of drugs which either do not reach the seat of the disease in any appreciable quantity, or else, by their astringent and irritant effects on the gastro-intestinal mucous membrane, are positively

injurious. The older treatment, also, by astringent rectal injections, cannot be considered as wise or beneficial. Belief in the parasitic origin of the disease must lead to the hope that antisepsis and cleansing of the colon are the methods which will in time give the best results. Fairbairn (Brooklyn Medical Journal, Oct. 1890), has published a paper advocating the use of large and frequently-repeated rectal enemata.

The patient should lie on the right side and 500ml to 2 litres of water, at a temperature of 38° to 41° C, should be thrown into the bowel with an alpha syringe. The author speaks of this treatment as irrigation. He does not dwell upon the value of adding antiseptics to the water injected.

Lemoine (Bulletin general de therapeutique, Paris, 30 Jan.), has treated 54 cases of dysentery by enemata with the happiest results. Were injected three times a day; later, was injected twice daily. The fluid was not retained usually longer than 10 minutes. Improvement showed itself, as a rule, at once; acute cases were cured in from 1 to 3 days, and in the acute attacks of the chronic form a cure was effected in one day. In no case was there any sign of systemic poisoning. Asbery (Alabama Medical and Surgical Age, Anniston, June) advocates ice-water flushing of the rectum. Rectal injections of water, have been used successfully by W. Easby (Northern Lancet and Pharmacist, Winnipeg, Manitoba, Jan.), in dysentery with profuse haemorrhage, when other remedies had failed. Nothnagel (Wiener medizinische Presse, Vienna,10 Mar.), in the meantime temporary measures must be adopted to avoid faecal accumulations, and he thinks enemata are preferable to drugs; when a laxative is imperative he prefers a vegetable product." - in "Annual of the Universal Medical Sciences", 1891.

"From North Yakima, Washington, we get an excellent paper in dysentery, from Dr. Richard Connell. I have had good results from the liberal use of the effervescent saline laxative, the sulphocarbolates, tonic or stimulant remedies, the least possible quantity of opium to produce rest and an

enema of cool water injected into the rectum following each movement, with colonic irrigation several times per day, plain hot water or medicated. Where it is not practical to use a tube for the colon I have the patient's hips elevated and use an ordinary rectal tube, allowing fluid to gravitate into the colon.

I have secured such good results from this line of treatment that I rarely use the ipecac in large doses; however, I use emetin frequently and think it gives favourable results. Last fall I had a case, a baby 9 months old, with symptoms of dysentery; pain over the abdomen, mucous stools, stained or mixed with blood, restlessness, and becoming rapidly emaciated.

I put it on the usual remedies, including the medicated irrigations, using the rectal tube after each stool. After a day's trial of this the mother became alarmed at the deep colour and large quantity of the mucus (as they always do),and considering the age of the patient. I felt rather dubious also. I sent word to the mother to have the child brought to the office, about four blocks from home. At this time the child was having numerous stools and) was very restless.

About 9 pm I placed a Geissler vacuum surface to the child's abdomen, turned on the mildest current possible from my high-frequency coil, and gently moved it over the colon 5 minutes. The child slept all night and did not have another movement for twenty-four hours, and the change in her face was very pleasing. She brought the child over for treatment several times, keeping up the other treatment. The child made a good recovery, the case lasting about a week or possibly a little longer.

I believe the electricity in this case simply acted as a stimulant or tonic to the weakened tissues, including the solar plexus, enabling the leukocytes to maintain the battle to a successful finish, or increased the efficiency of the other treatment. During the winter I attended a nursing baby three weeks old with this disease (catarrhal colitis). There were bloody muco purulent stools, tenesmus, restlessness and emaciation. I ordered enemata, medicated with argyrol, a

rectal tube, elevating hips, 3 or 4 times daily. Perfect recovery. In this case I of course used the usual internal remedies. In this case I was puzzled to account for the source of infection. The drinking water was invariably boiled and no artificial food was administered." - in "The American Journal of Clinical Medicine", Vol.18, 1911.

> *"This treatment, however, is by no means always efficacious, colon irrigations usually proving much more successful. Other irrigations are recommended by various authorities." - Dr Norbert Ortner, MD in "Treatment of Internal Diseases, For Physicians and Students", 1915.*

"Both constipation and diarrhoea predispose to dysentery. The essentials in the treatment are briefly: Early suitable purgation; Saline irrigation of the bowel; Restricted and non-irritating diet. Local irrigation, as mentioned later on, is of special benefit in chronic cases. Irrigation of the lower bowel. It is of benefit chiefly in those cases where the lowest portion of the bowel is affected, and if the irrigation is extensive it may be of great benefit.

Rectal irrigation, if it is to be done at all, should be done properly, the buttocks should be raised, injection should be given slowly, and the patient should be directed to retain it if possible for 20 minutes. The irrigation is especially indicated for large putrid stools which are frequent, rather than for those cases where there are small mucous ones. Hot injections are probably better than cold, being more sedative. Various preparations are used for irrigation.

Treatment of the Amebic Type

Irrigation. This method is the most rational if one could be certain of obtaining direct action upon the amebae. The amebae are easily affected by antiseptics, they are more easily acted upon in this way, and the results have

sometimes given great satisfaction. Daily injections should be persisted in till the amebae have disappeared from the feces." - Dr. Charles F. Martin, MD in "A Handbook of Practical Treatment", Vol.2, 1912.

Amebic Dysentery (Synonym Intestinal Amebiosis)

"**Definition:** A colitis, latent, subacute, acute, or chronic, caused by the amoeba dysenteriae. There is a special liability to formation of abscess of the liver. Often these cases occur without the clinical symptoms of dysentery at all. I agree with Musgrave that the condition should be more correctly given the name of "intestinal amebiosis." Strong and Musgrave, comparing 200 cases treated and untreated, find 159 cases involve the entire large bowel, excepting the lower rectum; 23 the cecum and ascending colon; 2 the transverse colon; the descending colon, sigmoid, and rectum 9; unrecorded 7; appendix ulcerated 2 (amebic); appendix involved with large intestine 14; ileum with large intestine 7.

The presence or absence of irrigation treatment makes a difference. In cases dying early from intermittent disease, ulceration in the cecum and ascending colon 11; in descending colon, sigmoid, and rectum 8; in the entire bowel 6." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Diphtheria, Treatment of

"At a meeting of the Section of Pediatrics of the New York Academy of Medicine (Med. Record, 26 Nov. 1904) Louis Fischer said the dose of antitoxin required must still be considered empirical, as we could not accurately determine the quantity of toxin in the system.

The shortcomings mostly to be met with were the placing of too much reliance on antitoxin regardless of vital necessities: the failure to stimulate Emunctories. Hot saline

colonic flushing of 46 to 48 C. should be administered for this purpose." - in "The British Medical Journal", 25 Feb. 1905.

Eczema, Treatment of

"The majority of physicians treat cases of eczema by intestinal cleansing, such as cathartic purges, intestinal antiseptics, and high enemas." - Dr J. Francis Ward, MD in "New York Medical Journal", 21 Sep. 1921.

"Eczema is a skin disease evidencing impurities in the blood, requiring elimination. It is' an itchy eruption of the skin which may appear upon any part of the body, in the form of scales or blotches, and in some instances rawness, occasioning much discomfort; also as tetter.

The primary causes are Improper Diet and Defective Nutrition. The basal cause is the retained wastes in the body, poisoning the blood, and through its circulation in the skin, and by means of the pores, poisons reach the surface, causing eczema. This waste is caused by the disintegration of exhausted cells, or by indigestible matter or impurities taken into the body, usually through the mouth, sometimes through the nostrils and possibly at times by the pores.

Treatment and Cure

All cases of Eczema may be readily cured by the following treatment:

Begin at the incipient causes and remove them. Thoroughly cleanse the entire colon by washing out of it all accumulations, and keep it clean. Many diseases start as a result of poisons developed there and imparted to the blood, deteriorating it, and accordingly enfeebling all of the bodily functions. So long as the engorgement continues the disease will become worse, as the toxic poison will steadily persist,

infecting the blood, imparting to it impurities, and that in turn will affect all of the bodily organs.

This poison-breeding engorgement should be eliminated from the body. After being once cleansed the colon should be kept clean. This prepares the way for effective treatment. Indeed, it is the first step towards healing. It should be done daily. The patient should immediately be placed upon a healthy diet. The digestive organs and the assimilative powers should be strengthened by drinking an abundance of pure water." - Dr B. Curtis Miller, MD, Surgeon to Western Maryland Hospital, Cumberland, Md., in "The New and Scientific Treatment of Chronic Diseases", 1914.

Eclampsia, Treatment of

"Limitation of absorption of toxins is only to be accomplished by ending the pregnancy. The method of operative delivery must be chosen to suit the needs of the individual patient and skill of the obstetrician. Prevention of damage by toxins already absorbed should be undertaken, and the control of convulsions by the free use of morphin to the point of slowing respiration to twelve per minute; also lowering of blood-pressure to approximately normal point by venesection in order to reduce the strain on the heart.

Free catharsis should be induced by the use of salines and croton oil in repeated doses until several watery movements have resulted. The lower bowel should be washed out by colonic flushing.

Probably most of the toxin is excreted by the intestinal tract, and if not removed it may be reabsorbed and cause a recurrence of symptoms. In these cases and in patients who have reacted badly to operative procedures, direct transfusion of blood should be considered as a possible life-saving procedure." - Dr Franklin S. Newell, MD Boston in "The Journal of the American Medical Association", Vol.59, 13 July 1912.

"The most valuable point in the treatment of eclampsia is Elimination! Elimination in this sense means a great deal more than simply giving an enema and a cathartic. It means that the attendant must give hours of time to the proper eliminative technic. Prolonged irrigation of the bowels will bring forth extraordinary amounts of putrefactive intestinal debris and faecal material. This is of prime importance as a curative agency.

Purging and Irrigation of the Bowels

The patient is turned on her side and the rectum and lower bowel thoroughly washed out with a solution of sodium bicarbonate. Lavage must be very thorough and the procedure persisted in until large amounts of faecal matter have been washed out. The passing of the colon tube is a most important question of technic.

A digital rectal examination should be made in each case to insure the proper insertion of the tube. When the bowel is well cleared, leave one and a 250ml of the sodium bicarbonate solution in the rectum.

One other point is well worth mentioning, I have noted that the irrigation is productive of better results if massage of the abdomen is combined." - Dr Adam P. Leighton, MD, LM (Dublin), Portland Maine in "The American Journal of Obstetrics and Diseases of Women and Children", Vol. 71, 1915.

Puerperal Eclamptic Attack, Treatment of

"Assuming the universally conceded premise that eclampsia is a toxemia due to the pregnant state, notwithstanding the diversity of opinion as to the source and identity of the toxic substances, the principle upon which the treatment of eclampsia rests, becomes apparent. With the above indications the treatment of the eclamptic woman calls for the immediate termination of the pregnancy, the counteraction of the various manifestations

of the toxic substances and finally the elimination of the toxic substances from the patient's system.

High Colonic Irrigations with normal saline 43.C, of half an hour duration may be repeated 3 or 4 or more times during the 24 hours. The Murphy instillations can be carried out in place of the irrigations. The dilution and elimination of the toxins by the bowels, kidneys and skin." - Dr Reuben Cronson, MD, in "American Medicine", June 1908.

Eczema and Epilepsy, Treatment of

"Elimination or modification of the offending food resulted in so markedly improving the children's condition that O'Keefe concludes that dietary regulation, is essential in the treatment of Eczema. We know that attacks of Infantile Convulsions can be avoided or lessened by intestinal purging, enemas, and intestinal antiseptics. This directs attention at once to the food ingested. Formerly, teeth were considered as the inciting factor.

Although some cases of Epilepsy develop late in life, the great majority occur between the ages of 2 and 7. When we consider that this is the age when the child leaves his nursing mother to partake of adult diet, we witness an attack of convulsions which in a great many cases is a forerunner of a later epilepsy. In most cases of epilepsy there is no pathological lesion, excluding, of course, traumatism; the attack appears after a hearty meal.

Such attacks are lessened by cleansing the intestinal tract thoroughly. In static seizures the accepted treatment is limited diet and intestinal cleansing by antiseptics and high colonic irrigations. Is it not reasonable to suppose that by this treatment we rid the body of all foodstuffs which contain the offending protein or proteins?" - Dr J. Francis Ward, MD in "The New York Medical Journal", 21 Sept. 1921.

Epilepsy

"We have had several cases of a nontraumatic form of Epilepsy, especially in young adults, but in 2 cases of Chronic Epilepsy of many years standing, the seizures were greatly lessened in frequency and severity, after phenobarbital and other drugs had failed to relieve.

One man, aged 49, who had weekly convulsive attacks, has gone without an attack for more than a year since drainage and Colonic Irrigation were discontinued. There is clinical evidence to suggest that there may be circulating toxins from liver or intestines, the removal of which by drainage and irrigation prevents or ameliorates the attack. The foregoing group embraces our personal experience." - Dr B. B. Vincent Lyon, MD, Dr William A. Swalm, MD, Chief, Gastro-Intestinal Clinic, Samaritan Hospital Philadelphia in "JAMA", 14 Nov., 1925.

> *"Epilepsy: Its Treatment, Hygienic, Medicinal and Surgical. — D. R. Brower (Chicago) referred to the formation of the "epileptic habit" and stated that for the successful treatment it was necessary not only to remove the cause of the disease but to break up the habit, the greatest difficulty in that direction being to get the patient to persevere in a systematic course of treatment. The hygienic treatment should be disciplinary, pedagogic and dietetic, and for those cases of epilepsy where t e instability is particularly marked, institutional treatment is recommended. The use of lavage, colonic flushing, laxatives, baths and massage, in order to increase the elimination, was recommended." - in "American Medicine", 1902.*

Fever, Treatment of

"Louis Fischer (Medical Adviser) Rectal or colonic flushing with 500ml or 1 litre of cool water at 27.C degrees is a good means of reducing fever. New York Medical Journal." - in "The Trained Nurse and Hospital Review", Vol.60, 1918.

Functional Diseases of the Nervous System Convulsions Infantile Treatment of Eclampsia

"This is a symptom and not a disease, and consists in a motor discharge, resulting from a cerebral irritation, evidenced by conclusive movements or contractures of the muscles of one or more parts of the body.

Etiology: The nervous system of the child is so subject to reflex stimuli, and the inhibitory power of the brain is so poorly developed, that convulsions occur with comparative frequency. Among these stimuli are the toxins generated at the onset or during the exanthemata, toxins generated in the gastrointestinal tract, rachitis, phimosis, dentition and a host of other conditions may, reflexly, cause convulsions. When occurring during the first week or two of life the convulsion may be due to pressure on the brain from within, from a haemorrhage; later to an organic disease of the brain, as an abscess, haemorrhage, meningitis, etc.; they may be due to an hereditary condition, epilepsy, or may be traumatic. Convulsions are much more frequent during the first 2 years of life.

Treatment: Judiciously applied the relaxing effect of a plain full bath or of a mustard bath may be very pronounced. The next indication is to remove the cause if possible. Because of the frequency of toxins from the intestine being the cause, as soon as the child can swallow, a dose of castor oil should be administered to completely

empty the intestinal canal. A Colon Irrigation should be given early. This may be cool if there is much fever. Rest and quiet are most essential." - Dr Henry Enos Tuley, MD in "The Diseases of the Child", 1913.

Haemorrhoids, The Non Operative Treatment of

"In a consideration of the non-surgical treatment of internal haemorrhoids there must be out lined the treatment for cases with acute and those with subacute symptoms, as well as the general measures beneficial to both. The cases with symptoms of considerable severity are best treated by putting the patient to bed at once. Elevation of the hips by pillows and the assumption of the knee chest position at intervals are desirable. Next in importance is the application of cold or heat, according to the preference of the attendant. Cold may be effectively applied by giving small repeated enemata of chilled water, or sometimes even the introduction of a small piece of ice is of service.

Hot or cold rectal irrigation (the rectal return flow irrigator being used) is of great service. Where hot water is used it is desirable to continue the irrigation for 10 or more minutes, repeating it as indicated. With cold, applications of shorter duration act best, as the astringent action is immediate, and if the cold is too long continued, relaxation may supervene." - Dr Elizabeth Mercelis, of Montclair, N.J. in "New York Medical Journal", 1905.

> *"In those cases of piles where I refuse to operate, I advise the patient to use daily enemas at bedtime, and thereby keep free from hemorrhoidal pain and discomfort." - in "JAMA", Vol. 34, 1900.*

Hyperpyrexia

Hyperpyrexia is an extreme elevation of body temperature which, depending upon the source, is classified as a core body temperature greater than or equal to 40.0 or 41.5°C.

Mode of Giving and Benefits of Cold Rectal Irrigation

"In regard to the cool Rectal Irrigation, I would say that this is one of the most positive methods and I believe the most valuable method at our command of combating hyperpyrexia. Aside from the cleansing of the lower bowel, its influence upon the circulatory and nervous systems is most profound. We know what a powerful agent for good hot rectal applications are in the case of shock, etc., how thereby the vital centers are stimulated to renewed action and the organs resume their proper function.

Very hot and very cold applications have about the same effect in stimulating the reflex centers, so that from our cold rectal irrigation, we not only get cleansing of the lower bowel, marked lowering of body temperature, but we also get what the reaction of the Brand bath produces, stimulation of the vital centers and increased elimination of toxins. I use a glass or metal two-way rectal irrigator and keep up a continuous flow for 15 or 20 minutes.

If we make the application for a shorter time, it tends to increase intestinal peristalsis, but usually by 5 or 10 minutes this tendency is passed. I have on several occasions of severe hyperpyrexia used ice water with apparently most gratifying results, but usually water at 60° to 70° F. is all that is necessary. After it is employed 2 or 3 times the patients enjoy it, often going to sleep under its quieting effect. The patient lies on the side in the Sims position and is put to no inconvenience, as the water is carried off by a rubber tube and no bedpan is needed." - in "The American Journal of Clinical Medicine", Vol.18, 1911.

Hypertrophic Catarrh (chronic condition of inflammation) of the Rectum, Treatment of

"This acute inflammatory condition may, no doubt, extend into the colon, but so far as my examinations have gone the condition is confined to the rectum and sigmoid flexure. Owing to the fact that the sphincters are spasmodically contracted and the muco-cutaneous margin of the anus is generally involved in the inflammatory process, the introduction of the sigmoidoscope is very painful in this disease, and as an instrument for treatment it is only useful in the later stages, when the affection has become chronic or ulceration has occurred.

At this period it is invaluable. Rectal irrigation through a properly constructed irrigator is the rational treatment for this condition. Large quantities of cool saline or boric-acid solution should be passed through the parts several times a day." - Dr James P. Tuttle, MD, Professor of Diseases of the Rectum in the N.Y. Polyclinic, in "Local Examination and Treatment of Diseases of the Upper Rectum and Sigmoid Flexure", New York Medical Journal Vol.68, 1898.

Gas Pains

"Verchere, (Malcolm. Physiology of Death from Traumatic Fever, p. 34) the same date, blamed the absorption of poisonous substances from the intestinal tract.

Crile, (Blood Pressure in Surgery) 1903, after a series of remarkable and extensive psychological and physiological studies of the conditions pertaining to shock, local and general, studying and experimenting on the different tissues of the body (brain, adrenals, liver, etc.), determined that trauma of the intestine affected the vasomotor system in particular; that in a short time after the viscera were taken from their natural bed and exposed to the air, aberrant vessels would appear and the intestine change in colour and in consistence; that it underwent a rapid lack of tonus, which

was very soon followed by arterial hypotension, associated with exhaustion of the central vasomotor mechanism; and, if this continued for a time, there was chromatolysis in the Nissl substance with similar changes in the cells of the adrenals and liver. In 1900, Kemp (Enteroclysis, Hypodermoclysis and Infusion) issued a little book on enteroclysis.

His investigations have not been greatly exploited, but, for over 10 years, I have been using in Christ Hospital the double current rectal irrigation as advised by him: If a normal saline solution, or plain water, enter the rectum at a temperature of 48.C not as it is poured into the bag (Luciani. Human Physiology, vol. ii, p. 239) be passed into the rectum and out again for 20 or 30 minutes, a marked physiological stimulation and betterment of function will occur through the entire anatomy. The water should be flowing constantly, with occasional compression of the exit tube to better allow the large gut.

Cannon (Mechanical Factors in Digestion, 1911) tells us that fluids thrown into the rectum induce antiperistaltic waves, and are thereby carried to the caecum. Dawbarn (personal communication), while performing a laparotomy and using the Kemp's tube, saw the water reach the caecum. The position of the large gut is such that the hot water it contains will warm up and stimulate the circulation of the large sympathetic plexuses; so not only is the intestine cleansed, but, through physiological stimulation of the sympathetic, we obtain a reflex effect upon the small gut.

Through its effect upon the gastro-intestinal tract there is relief of congestion and improved circulation in the stomach and duodenum, as well as in the intestines (Musser. Practical Treatment, 1911, Vol. I, p. 474), and all internal organs are disencumbered. At the end of 20 minutes the cutaneous reflex is felt, the skin warms and. normal perspiration occurs. If continued for more than 20 minutes, the circulation in the kidneys is enhanced, diuresis being instituted.

It is a well-known fact (Forchheimer. Therapeutics of Internal Diseases, 1913) that a warm, mildly perspiring skin

soothes mental jactitation and anxieties and promotes slumber. Various methods have been tried by me from time to time, but my interns and nurses, who judge my work impartially, invariably fall back to the Kemp's tube. Now that we have, apparently, the entire pathology of this syndrome, physiological deviations of each of the different tissues of the intestines being diagnosticated, a true remedy can be instituted. The double-current high rectal irrigation with water at 48°C seems to meet every indication in an advancing case of tympany.

All other methods of treatment, so far as I am able to judge, seem to touch the condition but superficially. What is worth doing at all is worth doing well and thoroughly.

What we do should be based on most competent knowledge and stand the test of criticism as well as experience, and in my practice the double-current high rectal irrigation has given the greatest success." - Dr Gordon K. Dickinson, MD, FACS, Jersey City, N.J. in "Transactions of the American Association of Obstetricians and Gynecologists", 1915.

"As Dr. Dickinson so truly says, patients who have to be re-operated dread the anesthetic and the subsequent gas pains. To those might well be added the preliminary preparation. The paper gave us an admirable resume of the literature on the subject, and it wound up by offering a very practical method of relief which I have used in about the same way and with the same results that Dr. Dickinson spoke of." - in "Transactions of the American Association of Obstetricians and Gynecologists", 1915.

Treatment of Gastroenteritis (Summer Diarrhoea)

"To everything there is a season, and a time to every purpose under the sun: a time to heal and a time to speak" - Solomon

"This is the fitting time to speak of successful healing treatment. If mucus is very abundant and surrounds small flocculent masses or curds, the chief trouble is in the colon. If there are streaks of blood also, the rectum is involved— a colitis and proctitis. Babies with this form of diarrhoea have griping and tenesmus, with occasional prolapse of the rectum. It is my habit to have all such hospital cases given frequent intestinal irrigations of warm salt solution, one drachm to the pint.

There is nothing better than the salt, though it may seem more elegant to use one of the numerous germicide and antiseptic preparations, of which there are so many. In cholera infantum the copious saline injections not only lessen the frequency of stools, but, being readily absorbed, help to replace the great loss of fluid. The collapse is overcome, and the weak, fluttering pulse be comes stronger." - Dr William Leland Stowell, MD in "New York Medical Journal", Vol.68, 1898.

Acute Gastroenteric Infection, Treatment of

Synonyms: Acute gastroenteritis, summer diarrhoea, summer complaint.

"Colon irrigation once daily with the normal salt solution is of great benefit, especially early when the nausea and vomiting are features and there is so much loss of fluids." - Dr Henry Enos Tuley, MD in "The Diseases of the Child", 1913.

Acute Intestinal Obstruction

(Synonyms: Ileus; Miserere; Passio Iliaca)

"General Considerations: Acute intestinal obstruction may be defined as a sudden acute stoppage of the passage of the intestinal contents. This may be caused by mechanical

occlusion of the intestinal canal (mechanical ileus), by a sudden loss of motor power in a portion or in all the bowel (dynamic or paralytic ileus), or by a combination of these conditions. Immediate and thorough lavage, digital examination of the rectum, and if no evidences therein of obstruction or intussusception, preventing the entrance of an injection, then a careful recurrent rectal irrigation; genital examination and inspection of hernial openings should be the preliminaries in the examination of every case.

Lavage and irrigation of the bowel immediately promote the comfort of the patient by lessening distention, render the physical examination easier, and the combined methods are thus an invaluable aid to diagnosis. It may be necessary to substitute a high enema for irrigation." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Intestinal Obstruction

"Lewi, of New York ("Archives of Pediatrics, Philadelphia", May 1894) relieved a case of obstruction, in a child 9 months old, by an enema of 900 cubic centimetres of water. Ssewerin ("Bolnitchnaja gazeta Botkina", No.3, 1894) reports the relief of obstruction by faradization after all other methods had been tried without avail.

Rafter, of Holton, Kan., ("Kansas Medical Journal", 7 April 1894) reports 2 cases of intestinal obstruction from excessive amounts of walnuts, grape-seeds, and grape-skins. Enemata were successful in the first case after apparent peritonitis had set in; in the second, kneading of the bowels was added, with a similar result. E. Anderson ("JAMA", 27 Jan. 1894) insists upon immediate operation if the obstruction be sudden. He reports a number of cases, in one of which repeated enemata failed and operation was refused. There was no autopsy.

In another a stone was found in the ileum after death. In a 3rd repeated injections brought away 250ml of cherry-stones. In a 4th repeated doses of cathartic removed a mass of tomato-seeds. In a 5th the obstruction, removed by enemata

and cathartic, consisted of partially-masticated nuts bound together by the gum of raisins.

Another case appeared to be suffering from slight diarrhoea, but the repeated administration of purgatives and enemata kept up for a month brought away a large amount of hardened faecal matter which had probably been accumulating for years. The last case reported was that of a child of 16 months, who was suffering from repeated convulsions apparently due to focal lesions, but who had no evidence of obstruction except constipation, which made purgatives always necessary to open the bowels. After some months she passed a large china button.

A. McC. Dallas ("Indian Medical Record, Calcutta", 16 Nov. 1893) describes a case of intestinal obstruction in a man who a month before had had an attack of severe abdominal pain, borborygmi, and tympanites relieved by the evacuation of the bowels by a purgative. He was quite well after this until he was seized with the same symptoms, which on this occasion were not relieved by purgatives, nor were the bowels opened. A tumour could be felt in the caecal region. The symptoms of obstruction set in rapidly with stercoraceous vomiting on the 4th day. Laparotomy was about decided on when two large enemata given at short intervals produced several large faecal movements with entire recovery in a few days.

Maiss ("Medical and Surgical Reporter, Philadelphia", 24 Mar. 1894), was able to overcome obstruction in a child, with a tumour presenting in the left iliac fossa, by effleurage from left to right. Barder in "Medical and Surgical Reporter, Philadelphia", 24 Mar. 1894 records 2 similar cases.

H. Nimier in "Archives de médecine et de pharmacie militaires, Paris", Feb. 1894 states that as the diagnosis rests especially upon the 2 symptoms: constipation and the failure to pass gas by the bowel; an effort should be made to determine the presence or absence of these two. He favours the use of the electrical enemata of Boudet to determine whether or not there is absolute constipation.

T. M. Burns in "Gross Medical College Bulletin, Denver", Jan. 1894 reports a case of intestinal obstruction in a woman

who had suffered from frequent small stools with straining for 2 or 3 days. She then developed intense pain, a tender spot above and to the left of the umbilicus, a small swelling in this locality, and gurgling and faintness produced by pressure. Injection of water distended the colon up to the point of obstruction. This having failed to relieve the patient, she was put in Trendelenburg's position (body in supine, flat on the back on a 15-30 degree incline with the feet elevated above the head), a second enema given, and the seat of obstruction gently manipulated, as a result of which the tumour suddenly disappeared. A stool soon followed, and recovery ensued. The writer thinks the case clearly one of volvulus or intussusception." - in "Annual of the Universal Medical Sciences", 1895.

Intussusception (Bowel Obstruction)

"In the June we reported a case of obstruction of the bowels, finally over come by a copious enema, that, by its mechanical action, we supposed replaced an intussuscepted portion of intestine. In such cases, Dr. Watson says:

> *"To persist in the use of drastic purgatives, is to inflict wanton and needless torture upon the patient."*

In our humble judgment, if there was intussusception, cathartics were worse than useless; and, if not, our best hopes lay in first quieting the stomach, so that it would not reject an efficient cathartic." - Dr O. C. Gibbs, MD, in "The Peninsular and Independent Medical Journal", Vol.2, 1859.

Treatment of Haemorrhoids

"Now, we have already shown that flushing the colon relieves liver engorgement, and that the effect of hot water is to relieve local congestion, therefore, it goes without further saying, that this treatment ought to relieve piles

(haemorrhoids)." - Dr W. E. Forest, MD in "The New Method in Certain Chronic Diseases", 1897.

Ileo-Colitis in Children

"Memphis Medical Monthly. Vol. xx., No.1. In detailing the character of the disease, the author calls special attention to the occurrence of nephritis in many of these cases. If the mother is not so fortunate as to be able to nurse her child, a wet nurse, if available, should be secured. When milk disagrees some other food may be employed. Beef juice is often the most satisfactory. Care should be taken that not too much food of any kind is given. Meat broths are frequently tolerated. The white of egg, barley water, and finely divided particles of raw beef are all regarded highly. Two hours should elapse between feedings. Alcoholic stimulation may be required from the first. Brandy is the best form of administering it and should be given with barley water. With tenesmus and the passage of blood and mucus there is nothing so effective as rectal irrigation.

From 500ml to 1.5 litre of normal salt solution should be used according to the age of the child. Where there is much blood in the stools injections into the rectum of subnitrate of bismuth with opium are beneficial, especially after the intestine has been irrigated." - Dr DeLoach, A.B., in "Archives of Pediatrics", 1900.

Treatment of Diseases of the Heart

"Constipation: When the bowels are confined there are two sources of increased embarrassment to a damaged heart; the one is distension of the colon, by which the diaphragm may be pressed upwards, and so the heart's action be interfered with; and the other, perhaps the more important, is, that constipation promotes congestion of the portal veins, affecting first the liver, and subsequently the right side of the heart. Many patients with organic cardiac disease have, in their own experience, found that as soon as

the bowels become constipated their dyspnoea is increased, and so also the palpitation and irregularity of the heart.

The magnesian purgatives efficiently relieve portal congestion, whilst they remove constipation; colocynth with henbane, and the gamboge pill with henbane, may be used with advantage, as also may the compound jalap powder; or aloes, alone or in combination, as the decoction of aloes with the old compound gentian mixture of the London Pharmacopoeia. Many of the milder laxatives, as vegetable diet, etc., are ineffective, for they distend the stomach, and produce flatulence without affording relief.

Enemata are of greater service, as those of soap, colocynth, castor oil, etc. The milder the means that are employed the better, if they are efficient in their action, and, if possible, it is desirable to avoid repeated action which greatly fatigues and distresses the patient." - Dr S. O. Habershon, MD, in "Guy's Hospital Reports", 1866.

Heat Cramps

"Heat cramps: Oatmeal water should be used to quench their thirst. The minor spasms in the muscles of the arms and legs are usually treated by the men themselves by rubbing each other. When the cramps are severe the patient should be placed in a hot bath, the muscles vigorously rubbed, and large quantities of hot water given by the mouth and injected into the bowel.

Thirty grains of bromide of potash should be given in half a glass of water. If the patient can not retain this, 60 grains in a pint of water should be administered by the rectum. The next day every effort should be made to get the patient's bowels opened by giving him castor oil or salts or injection of soapy water." - Dr W. G. Stimpson, MD, Assistant Surgeon General, United States Public Health Service, in "Prevention of Disease and Care of the Sick and Injured", 1915.

Infantile Diarrhoeas, Treatment of

"Much of what has been said of the treatment of acute dysentery in the adult holds true in the treatment of ileocolitis of infants. Here again the important factors are the regulation of diet and the sweeping out of the intestinal contents by means of purgatives. Daily colonic flushing with salt solution should be instituted from the beginning and maintained until the stools return to their normal character. Enemata of cold water should be employed in the beginning. As the disease progresses rectal irrigations of warm water or oil are very grateful. Small quantities of warm water injected into the rectum after each stool give great relief, in addition to providing a more efficient emptying of the bowel. In this stage colonic irrigation is most valuable. - Editor". - in "Therapeusis of Internal Diseases, Infectious Diseases, Intoxications, Constitutional Diseases", Vol.2, 1913.

"Dominion Medical Monthly. Vol. xiii., No. 4. In a paper prepared for the Canadian Medical Association, Dr. J. T. Fotheringham, MD stated that taking the figures for 1897 for Toronto, as a basis, it is seen that 31.23%. of all deaths in Toronto occur under one year, and that 5.14% of all deaths are due to diarrhoea under one year. Of the total deaths under one year (977) diarrhoea causes 161, or 16.48%. Irrigation of the colon with a normal salt solution is an excellent method of clearing the bowel. In cases of collapse and prostration it ranks only second to interstitial injection as a stimulative and restorative measure." - in "Archives of Pediatrics", 1900.

Intestinal Autointoxication, Treatment of

"In very acute cases of toxemia with violent and dangerous symptoms elimination may be necessary by means of venesection, particularly where there is evidence of involvement of the kidneys. Elimination and neutralization of the gastrointestinal poisons is effected empirically by laxatives. Should there be impaction of faeces in the colon, sigmoid, or rectum, high enemata should be resorted to. In cases of Chronic Intestinal Autotoxemia the weekly, biweekly, or, at times, even daily use of colonic flushing by the postural method is to be recommended.

In fact, as a health measure for the average individual, who generally eats more than he needs at any rate, and who is often more or less constipated, flushing of the colon once or twice a month is a very beneficial procedure in preserving vigour and vitality and sustaining efficiency and good spirits in one's daily life and work. Next, to be thought of is removal of poisons which have been absorbed in the circulation. To provoke perspiration was the method of antiquity by the use of hot drinks, wrapping in hot sheets or blankets. It is questionable, however, whether the resultant diminution in the quantity of urine docs not retard the elimination of toxic product through the kidneys.

It is the kidneys chiefly that eliminate toxic substances of gastrointestinal origin, and the drinking of cool water and the application of cool bathing aid elimination by increasing the renal secretions. I have known the apparent resultant concentration of toxins in the Wood. owing to deficient renal secretion, to produce severe frontal headaches lasting for four or five hours thereafter. Sometimes autotoxemic patients suffer from marked nervous restlessness and sleeplessness.

Perhaps there is more effective measure in both the relief and cure of chronic intestinal autointoxication associated with atony and dilatation of the colon and the accumulation of enormous quantities of fecal matter than the therapeutic application of the coloclyster. By this means it is possible to

introduce the largest quantity of water which the colon can hold without overdistending it. In the ordinary enema it is difficult to introduce more than a pint or two of water, and this is usually taken in a sitting position, so that rarely more than the rectum and lower portion of the sigmoid are reached. When the patient is placed in the knee-chest position or in the Sims position, the amount of liquid may be increased to 4 or even 5 or 6 pints without causing any inconvenience to the patient. It is the habit of the author to instruct patients to hang the two or three-quart bag of a fountain syringe about five feet above the floor; then have the patient lie on the left side, without a pillow for the head, on a blanket placed on the floor, with the face turned toward the wall; then introduce the small rectal nozzle and let the water run until a sense of fullness, or even slight discomfort, is felt over the region of the sigmoid and descending colon.

The patient is then told to pinch the rubber tube, turn over on the back and (with the head low) let another instalment of water run into the bowel until another sensation of fullness or possibly cramping is felt, and the conducting tube again pinched and held while the patient makes another turn, and this time upon the right side.

A third flow of water is then permitted, until the pressure within the bowel can no longer be tolerated; then the flow is stopped. After removal of the nozzle from the rectum the patient is instructed to keep the knees and thighs bent and gently to oscillate the body from right to left and back again several times, at the same time rubbing the abdomen in a circular fashion with one hand. In this way the colon is flushed from rectum to cecum, the flexures are distended, accumulations and old incrustations of dried, sticky faecal matter are loosened and removed with the gushes from the bowel which ensue when the patient arises to solicit relief on the closet. In the knee-chest position the action of gravity is still more helpful in completely filling the colon. This treatment is also beneficial in catarrhal and membranous forms of colitis.

The introduction of very hot water into the colon increases blood pressure, improves and accelerates the heart

action, and produces a marked effect upon the renal secretion. A temperature of 43°C to 48°C has been found much more effective in increasing renal secretion than a lower temperature. After colonic flushing, even within 1 hour or 2, a large quantity of clear urine is frequently passed.

The author has observed this personally in a number of instances. In aggravated cases of habitual constipation in autointoxication a free coloclyster may be administered once daily for a week or ten days, or even longer, surely as long as gaseous distention of the bowels and fetid flatulence are complained of. It is best to have these colonic flushings given at night, so that the patient may rest and sleep without a sense of weakness.

Occasionally, after the hot water has been introduced and discharged, a pint or two of water at from 21°C to 29°C should be injected, as a tonic bath, to stimulate the colon and rectum, by exercising the muscular structures and energizing the controlling nerves and nerve centers in the bowel wall.

The graduated enema is very rationally and rightly recommended by Kellogg as an exceedingly useful mode of overcoming the enema habit by weaning the bowel from the frequent necessity of distention with warm water in order to provoke an evacuation. Each day the amount of water is diminished and the temperature lowered.

"Beginning with 1.5 litres of water at a temperature about that of the body, the amount of warm water introduced each day is diminished by 250ml, 125ml of cold water being added, making the total amount of the fluid 125ml less each day. At the end of the 12 day the enema will consist of 115ml of cold water. Sometimes a preliminary clearing of the rectum is necessary, by means of a simple enema of warm water, before the high injections are begun.

In acute cases of autotoxemia the colonic flushing may be repeated after resting intervals of an hour or two until evidences of improvement are distinct: the pulse becoming fuller, the headache and delirium disappearing, the dry mucous membrane becoming moist, and the general

appearance favourable. It is quite usual to note at the same time a marked reduction of fever. Abrams suggests in some cases the double-current method of Colonic Irrigation, which permits of continuous irrigation and allows the small intestine to evacuate the contents into the lower bowel. Either Bodenhamer's or Kemp's rectal irrigators have been found useful for this purpose. Various antiseptics have been suggested in connection with irrigation of the colon. A simple salt solution may be used for irrigation purposes." - Dr Howard S. Anders, AM, MD, Professor of Physical Diagnosis, Medico-Chirurgical College, Philadelphia, in "Therapeusis of Internal Diseases, Infectious Diseases, Intoxications, Constitutional Diseases", Vol.2, 1913.

Infectious Diseases

"It is also probable that in many of the cases the infectious disease simply serves to lower the vitality of the individual, so that with the lessened resistance, other organisms which are present in the body and which under ordinary conditions may be beneficial, or at least not harmful, under these changed conditions may assume proportions of definite seriousness.

Some of the cases of more or less general rheumatism, or infectious arthritis, starting at these times, and which from their behaviour are in every way similar to the many cases which commonly develop without the coincidence of the general infectious disease, are probably in no sense specific of the infectious disease, but have developed because the common organism in the throat, intestines, or elsewhere have not been properly "policed" at the time when the general resources were engaged in fighting the general disease.

The same thing is true of the cases of osteomyelitis, undoubtedly due to the staphylococcus or the streptococcus, in which in all probability these organisms were not the cause of the primary diseases, but were able to gain lodgment locally as the result of lessened resistance consequent upon this general disease. In all such conditions

in the control of the local disease naturally every detail of hygiene that will increase the individual's resistance to an infectious disease should be observed, and in this connection, since many of the organisms which may be absorbed and become active in the joints develop in the throat and in the intestines, special care should be taken to see that these parts are thoroughly cleansed by: gargles, cathartics or irrigation." - Dr. Joel E. Goldthwait, MD in "A Handbook of Practical Treatment", Vol.2, 1912.

Intestinal Haemorrhage, Gelatin Enemata in

"Among the varied applications of the new-found haemostatic, gelatin, is its employment in intestinal hamorrhage. The Presse Médicale, 16 December 1899, without mentioning the source of its information, says Dr. Guttmann was called to a child, 36 hours old, which was literally bathed in its own blood, which evidently came from the rectum. He sent for some sheet gelatin, dissolved it in warm water, administered half of the solution as an enema, and ordered the rest to be given by the mouth in small doses. The child had one more bloody passage, but after that there was no more bleeding, and recovery took place." - in "New York Medical Journal", 24 March, 1900.

Intestinal Parasites

"The inflammation of the bladder, colon, and rectum should be treated as indicated by irrigation, etc. Solutions, as described under Proctitis and Colitis, can be employed for the latter complications." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Acute Intussusception in an Infant, Resection of Gangrenous Intussuceptum

"A moderately severe secondary enteritis soon developed; this was treated with astringent intestinal antiseptics, and bowel irrigations. The post-operative treatment is of great importance. The immediate danger is death from shock, and free stimulation is indicated to overcome this condition. The next danger is due to the secondary enteritis and toxemia, which are present to a greater or less degree in all cases of intussusception. If opium is systematically employed, the enteritis is aggravated, and the toxemia accentuated. It is better to give a mild laxative, and to follow it with astringent intestinal antiseptics, and bowel irrigations. Under such management the condition will improve."- Dr Edward W. Peterson, MD in "Medical Record", 1905.

Irritable Bowel Syndrome (IBS), Treatment of

"Treatment of Mucous Colitis: Recommends daily Colonic Lavage with a solution of sprudel salts as the best measure for removing mucus and relieving toxemia in this disorder." - Dr G. P. Hamner, MD in "Virginia Medical Monthly", March 1921.

Jaundice and Biliousness, Treatment of

The treatment of these troubles should be by "flushing the colon" and exercise "Flushing the Colon" has a decidedly stimulating effect on the liver. This fact has been recognized by some of the leaders of the medical profession, and injections of water have been recommended by them as a cure for jaundice. The measure recommended above is a step in advance of simple injections of cold water, and is a

specific in biliousness and jaundice. Carry this out faithfully as you value good health." - Dr W. E. Forest, MD in "The New Method in Certain Chronic Diseases", 1897.

> *"For biliousness and jaundice, the colon should be flushed daily and considerable exercise, especially by walking, should be taken every day, in the open air. This is also good for nervousness." - Dr B. Curtis Miller, MD, Surgeon to Western Maryland Hospital, and Dr Cumberland, MD, in "The New and Scientific Treatment of Chronic Diseases", 1914.*

Therapy of Catarrhal Jaundice

> *"Krull recommends the daily injection of cold water into the rectum. He says it has been so successful that he has never had to repeat it more than 7 times. One or two litres of a temperature of 15°C are thrown up the bowel, and allowed to be retained as long as possible. The temperature of the water must be gradually raised with each successive injection." - Krull, Berlin. klin. Woch. 1877.*

"Krull's Irrigations: In case a proper diet and the use of mineral waters do not have the desired effect, we may try the so-called "Krull's irrigations", that is, a daily quick colon irrigation with 1 litre of water at 15°C-20°C or even ice-cold. This cold irrigation apparently causes violent peristalsis but with it strong contractions of the musculature of the biliary passages, which start a renewed flow of bile into the intestine.

Possibly this contraction is also helped by a slight irritation of the bile duct, caused by the stretching of the colon on account of the amount of liquid. Like other irrigations, they also help the functioning of the liver by quickening the circulation in the portal veins and possibly

by affecting the hepatic nerves. In many cases the author has observed a rapid retrogression of obstinate jaundice, and a surprisingly quick recovery and return of appetite." - Dr Norbert Ortner, MD in "Treatment of Internal Diseases, For Physicians and Students", 1915.

Kidney Infections

"The kidney infections were as follows: right pyelonephritis in 14, left pyelonephritis in 2, double pyelonephritis in 5, right pyonephrosis in 1.

Four of these 14 presented prolapsed kidneys which drained poorly, and 2 were pregnant. In 2, the right kidney was prolapsed and involved, in 2 others, both kidneys were prolapsed and the infection was bilateral.

All of the remaining 8 gave a history of pneumonia complicating the influenza, and were profoundly toxic. 19 cases showed casts in the urine Bacteriologic examination of the catheterized specimen revealed colon bacilli in 12 cases; staphylococci in 3; diplococci in 3; bacilli, reported as possible influenza in 3.

The cases of pyelonephritis were treated by catheter drainage, pelvic lavage, diet, colonic irrigation, and urinary antiseptics. The acute symptoms subsided rapidly. The uncomplicated cases have been cured; the others are improved." - in "JAMA", Vol.73, 1919.

Laziness, Some Causes of (Lack of Motivation)

"Metchnikoff says age begins in that relic of a past stage of pre-development, the colon. A strain of faecal toxins in the blood arouses in the tissues those alterations we term degenerations, and these collectively constitute real age. For many years the morning "teaspoonful of saline laxative in a glass of cold water" has not failed to secure a free passage, and the dose has not required an increase.

But of late there are signs of insufficiency in wholly emptying the bowel and a few warm alkaline enemas, disclose an unsuspected collection in the large bowel. Remove this, and the laziness vanishes; and there comes a delightful sense of freshness, vigour, youth, fitness, a veritable hunger for work and effort that is an amazing change from the conditions preceding. Laziness is more often autotoxaemia than anything else, and we are justified in that diagnosis until some other is apparent." - in "The American Journal of Clinical Medicine", Vol.18, 1911.

Malaria

"In the remittent fevers caused by the benign tertian or quartan parasites, especially when quinin has already been given in insufficient doses and in an irregular manner, it will be well to suspend the alkaloid for a few days, using calomel (cathartic) in laxative doses and allowing the diet and rest to restore the tone of the patient.

Mannaberg questions whether calomel is justified under all circumstances in bilious remittent fever.

He considers that intestinal activity should be regulated in the same way in malaria as in any other infectious disease, and that irrigations and saline purgatives in suitable cases meet these indications fully." - Dr. M. J. Rosenau, MD, Dr John F. Anderson, MD, in "A Handbook of Practical Treatment", Vol.2, 1912.

Membranous Colitis
The Treatment of

"Dr. W. H. Thomson, MD relieves the colonic symptoms by Irrigation twice daily with from 11 to 19 litres of normal saline solution at a temperature of 38° C, 5 drops of oil of peppermint being added to each 500ml. Daily massage of the bowels is highly recommended." - in "Medical News", No. 1429, 1900.

"Dr. Patrick also reported on a patient seen, through the kindness of Dr. Lemke, to whom he had been sent by another physician, a diagnosis of tabes (slow bodily wasting or emaciating disease) having been made. He was 30 years of age, and at 20 began to have considerable pain at the junction of the sacrum with the right ileum, which gradually extended until it now involved the front of the abdomen.

This pain became so intense that he had to quit work. It was more or less steady all the time with paroxysms. He was first admitted into a hospital in Toronto, where a diagnosis of pachymeningitis was made.

He was treated with cautery and blisters, but did not improve, and he was said to be incurable. Shortly after this he went to Colorado, consulted various physicians, who did not help him much, and during all this time had trouble with his stomach and bowels. Every now and then he would be seized with a sudden pain with imperious call to defecate. His father induced him to take frequent Colonic Flushings, which relatively cured him, after all physicians had failed. He after this attended to his work as a clerk." - in "JAMA", Vol.34, 1900.

Migraines

"Case Mrs. M.B., aged 56 years, a mild tempered and quiet woman, suffered from what had been regarded as migraine for 44 years. During her childhood she was well except for the ordinary diseases. Beginning with the onset of puberty and menstruation, she had been subject to the following cycle: During an interval varying from 2 to 6 weeks, she was in fair health, active mentally and physically, appetite good, bowels mildly constipated, during latter years markedly so.

From time to time she felt a mild headache, lasting from a few hours to a day. and accompanied by slight languor which passed off, and left her free of complaints. Then suddenly, usually at night, or in the midst of a sound sleep, she would be awakened by a most violent headache, occupying the occipital and parietal regions on both sides,

described by her as sharp and piercing and of the most excruciating nature, accompanied by vomiting, which was almost continuous, of water, biliary material, and mucus. The patient lay in a condition of the most pronounced prostration, barely able to speak, moaning, and holding her head. Her colour was a pronounced pallor, blanched.

Case R. H., male baby, about 2 and a half years old, of normal birth and delivery. The child had been artificially fed since birth. During this entire period he had been the subject of recurring periodical phenomena, occurring at widely irregular intervals, from 1 week or 2 to 6 months apart, characterized by extreme prostration to the point of unconsciousness, and continuous vomiting of watery and bilious material. It was questionable whether the child, if old enough, would have complained of headache. My advice to the mother of this child was to put him on a diet of vegetables, milk, and cereals and colonic irrigations. The course of this child was followed for only one month, during which time there was no attack." - Dr Burril B. Crohn, MD, who identified Crohn's disease, in "Periodic Explosive Toxemias", New York Medical Journal, 17 January 1914.

Mucous Colic (Memebranous Enteritis)

"Among the best-known synonyms for mucous colic are mucous colitis, membranous colitis, membranous or pseudomembranous enteritis, and tubular diarrhea. In all, there are about 25 names for this condition. The greatest relief to the cramps and bearing-down pains is afforded by enteroclysis by recurrent irrigation with normal saline solution at 43° to 48°C, oil of peppermint, 5 to 15 minims (0.296-0.888) to the quart (litre), may be added. Several gallons should be employed once or twice in 24 hours, and no fluid should be left in the bowel after Irrigation, lest further cramps ensue.

High Enemata of warm olive oil, 500 ml to 1 litre are also of service, as they aid in relieving spasm just as does the internal administration of olive oil in spasm or stenosis of

the pylorus. Hot saline rectal injections containing 2 to 4 ounces (60.0-125.0) of milk of asafetida may be employed.

Diet

Fluid diet, milk, sour milk, broths, soups, etc., should be enjoined during an acute attack." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

"Chronic Membranous Colitis: The Colonic Irrigation Method (which in my opinion is the best single method of therapy we have for these conditions)". - Dr Anthony Bassler, MD, in "American Medicine", August 1908.

Mental Symptoms

"Treatment by colon irrigation and of oral sepsis was again followed by some reduction of mental symptoms". - in "Annual Report of the Board of Control", Vol.16-19, 1930.

Ulcerative Colitis
Colon Inflammation

"In consequence of this refined diet, although a very athletic youth, he was from an early age afflicted almost daily with attacks of intense itching and discomfort inside the rectum. A diagnosis of worms was made, but none were ever discovered. Associated with this irritating experience there was in the left lower abdomen near the middle line a frequent writhing movement, which was no doubt due to lively but ineffectual movements in the pelvic colon, possibly tied down by adhesions.

These symptoms persisted for many years, until, after attaining the age of discretion, he determined to investigate for himself the nature of the ailment by means of a hot-water enema. To his surprise, some 15 or 20 little pellets, like rabbit's faeces, some covered with mucus, revealed themselves, and the discomfort ceased. He also observed

that the pruritus occurred only if the bowels were for any reason opened before breakfast or in the evening instead of after breakfast, which was his usual time for defaecation. No doubt at other times the defaecation was incomplete, and so small pieces were delivered by the pelvic colon into the rectum, where they caused pruritus by irritation of the mucous membrane.

At the age of 32, despite his constant recourse to the enema for relief, the itching and writhing movements were replaced by periodical attacks of colic, due to ineffectual efforts at evacuation and resulting in a most inadequate expulsion of faeces coated with mucus and stained with blood. At this time the patient came under my professional supervision, and careful analysis of his symptoms convinced me that he was suffering from mucous colitis or sigmoiditis, a disease then somewhat of a mystery. Hence I encouraged him to proceed to Plombieres, in the Vosges, for treatment.

The Plombieres Cure

This now well-known spa was then making its reputation by its waters and intestinal douches as a centre for the cure of colitis, attracting patients from all parts of the world." - Dr Alexander Bryce, MD in "Intestinal Toxaemia", 1920.

Myocardial Degeneration

"The symptomatology of the general condition is detailed. A parenchymatous form is also met with in the infectious diseases, especially when they are protracted and accompanied by high temperatures. Perfect recovery from this form is common enough, but the myocardial degeneration, even where not recognized, is the cause of many sudden deaths. As to treatment, rest in bed, easily digested food (largely nitrogenous), and attention to the bowels are of primary importance. Occasional purging with high rectal irrigation is also of service." - Dr A. E. Roussel, MD in "New York Medical Journal", 25 February 1905.

Oedema Treatment of

"Acute Nephritis, Bright's Disease, Dropsy (Oedema) Only a Symptom: In specifying the sort of case a nurse is attending, she should be very careful to give not a symptom, like dropsy, but the accurate diagnosis. For instance, "dropsy" is a symptom common to two types of disease, cardiac and nephritic, due of course to the fact that the two circulations dove tail. Although the heart and kidneys react on each other in such a manner that if one is sick the other shows it, their treatments vary widely in every respect.

"Dropsy" may accompany some of the numerous forms of disease of each of these organs, but in itself it is only the most easily discernible symptom to the vulgar eye. In some types of cardiac disease, the mechanism of the heart is so impaired that the blood stream cannot make its regular circuit of the body and the serous portion is dammed back into the tissues, causing watery swelling simply by force of gravity and obstruction.

This is from wearing out. It may be assumed that the layman means acute nephritis when he says "dropsy," for it is a very prevalent condition, due largely to neglect of the simple factors of elimination, the lungs, the skin and the kidneys. Bright's disease may be caused by scarlet fever, extensive burns, chronic skin diseases, chill of kidneys in unfavourable circumstances, pregnancy, special drugs and trauma; in a word, anything that directly injures, poisons, or gives the kidney too much to do.

The symptoms are slight rise of temperature, pain in the area, nausea or vomiting, frequent passing of scant, highly coloured urine, puffy eyelids, swelling of lower extremities so that, if dented, the mark remains, pallor and shortness of breath. If a woman is pregnant, her kidneys are eliminating for 2. If one scavenger man has to take two routes owing to lack of help, the citizens along one route will suffer from the slow removal of their garbage. In burns and skin diseases, 1 of the 3 scavengers, Liver, Kidney, and Skin, is off duty, throwing the extra work on the kidneys. Certain drugs have

a direct action on the kidneys and will set up nephritis in a day. Again the very intricate mechanism of the kidney may wear out faster in some persons and become diseased and inflamed thus, without the start given by the factors above mentioned. In none of these cases is the disease of bacterial origin, purely mechanical or toxic.

Treatment

The treatment consists of reducing the work of the kidneys. Assign them directly as little to do as possible. At the same time give the 2 other scavengers more to do than usual.

1. Rest in bed: this will check the "dropping" down of serum into the fleshy parts.
2. Special diet: buttermilk, sweet milk and vichy, gruels of barley and arrowroot, stated quantities of potassium bitartrate water to drink.
3. Hot packs, sweat out the poisons.
4. Mild medication, as ordered to suit the patient's constitution.
5. Catharsis, to keep the bowels eliminating at the upper portion where absorption occurs.
6. Colon irrigations, to empty the lower bowel.
7. Follow-up work:

(a) weigh patient, his food and drink and his excreta;
(b) measure fluids taken and excreted (estimate sweat);
(c) test urine daily;
(d) observe heart action in packs;
(e) test heart after beginning graduated exercises in convalescence.

Massage is not indicated in these serious diseases. It is never ordered at any time by an intelligent physician unless he knows that the masseuse knows where and why to massage. Then it is done on the sick spot. If a patient's heart or kidneys are sick there is no use massaging his ankles." - Margaret Butler, RN in "The Trained Nurse and Hospital Review", Vol.62, 1919.

Inflammation of the Ovaries

"**Symptoms:** In addition to the chill, fever, excessive sensitiveness, etc., which are indicative of peritonitis, the patient complains of a deep-seated pelvic pain, pain at the side radiating to the back, and pain on pressure, in the iliac fossae. Bi-manual examination reveals the ovaries considerably enlarged, often about the size of a walnut, mobile, and very sensitive, pressure causing great pain of a sickening character. These symptoms may subside upon the occurrence of resolution, in four or five days; or, pus formed within the gland may be discharged into the peritoneum, the rectum, the vagina, or the bladder; or, the symptoms may become less intense and the inflammation assume a chronic form, with frequently occurring attacks of local peritonitis. If an abscess of the ovary occur, we have, according to Barnes in "Diseases of Women" p.266, the following terminations:

1. The ovary may burst into the peritoneum, causing abdominal shock, collapse, or peritonitis.
2. Small perforations may take place, exciting more circumscribed peritonitis, and leading to plastic effusions surrounding the diseased ovary.
3. Adhesions may be formed within the bladder or intestine, and a fistulous communication be established, by which the pus may be more or less completely discharged.
4. The suppurating ovary being the focus of a pelvic inflammation, by discharging into the rectum, vagina, or externally above Pourpart's ligament.

Treatment: The patient should be kept quiet, and either dry heat, hot fomentations, or the hot water bag applied to the surface. Hot water vaginal injections should be used, and care be taken that the rectum be not allowed to become loaded with faeces, frequent Enemata being usually desirable." - Dr A. C. Cowperthwaite, MD in "A Text Book of Gynecology, Designed for the Student and General Practitioner", 1888.

Paralysis, Treatment of

"Eliminate the poisonous accumulations from the bowels. So long as these poisons remain in the body they operate to deteriorate the blood, and in consequence but little can be done towards curing. Personal cleansing must precede all other efforts. Thoroughly douche the back, first with warm and then with cold water, as directed in the treatment for neurasthenia.

Give very thorough Osteopathic Treatment to the arms and legs, and massage the entire spinal column. The treatments numbered 3, 4 and 5 may all be given in one treatment, in the order stated. Give the cabinet vapour baths 2 times each week, to open the pores, restore physical equilibrium and to aid in eliminating the poisons from the body, greatly aiding and hastening recovery. Daily see that the bowels are kept free from faecal accumulations. Drink an abundance of pure water, ten glasses every day. Be hopeful and cheerful." - Dr B. Curtis Miller, MD, Surgeon to Western Maryland Hospital, and Dr Cumberland, MD, in "The New and Scientific Treatment of Chronic Diseases", 1914.

Paroxysmal Delirium, Treatment of

Dr. W. C. Hollopeter of Philadelphia called attention to the growing belief in autointoxication as the etiological factor in many pathological states and cited three cases of sudden cerebral disturbance apparently due to the absorption of septic products from the intestine.

The patients were all children and after a longer or shorter duration of the mental symptoms, fever and prostration promptly recovered under copious colonic flushing and intestinal disinfection. Dr. Judson Daland of Philadelphia observed that the presence of large amounts of indican and acetone in the urine points strongly to this form of poisoning and that no doubt other similar substances are

to be found, although we do not as yet possess the reactions to demonstrate their presence. Dr. Savery Pearce described a somewhat similar case in which mild delirium slowly developing with low fever in a child promptly responded to high injections and the wet pack." - in "The Medical News", Vol.77, 1900.

Pelvic Distress, Treatment of

"Thorough flushing of the colon with water as hot as one can endure will at once relieve the severe pelvic distress to which women at times are subject." - Dr B. Curtis Miller, MD, Surgeon to Western Maryland Hospital, and Dr Cumberland, MD, in "The New and Scientific Treatment of Chronic Diseases", 1914.

"Colon flushing relieves local congestion in the pelvis. When the washerwoman keeps her hands in hot water for a time they become white and shrivelled, because nearly bloodless. The hot water has driven the blood out of them. This is exactly what we can do to the pelvic organs with colon flushing. The hot water in the colon passes up behind and to the sides of the pelvic organs; it is retained there some little time, and thus the heat relieves the congestion and softens and soothes the swollen and inflamed tissues. Injections of hot water in the front are very much less effective, as in the latter case the injection is not retained, and only touches the pelvic organs at au extremity, in the former case, "colon flushing," the heat is applied for some time on at least three sides of the affected organs. Again, the weight of the considerable quantity of water in the colon at one time tends to push the pelvic organs towards the front of the abdomen, and thus the displacement is removed. Colon flushing, then, acts in 3 ways in the treatment of female disorders, and should be used in all cases." - Dr W. E. Forest, MD in "The New Method in Certain Chronic Diseases", 1897.

Pemphigus

"There will be a meeting of the Staff of the Quincy City Hospital jointly with members and guests of the Norfolk South District Medical Society and the New England Physical Therapy Society. The evening will be devoted to an inspection of the Physical Therapy Department, a discussion and demonstration of cases, and the following program:

Pemphigus - The Disease and It's Treatment by Colonic Irrigation, Dr Francis P. McCarthy, MD" - in "The New England Journal of Medicine", Vol. 206, 1932.

"C. L. Payzant discussed a case of pemphigus which was cured by a series of 12 colonic irrigations. He suggested that pemphigus may be due to autointoxication. If pemphigus is diagnosed early and Colonic Irrigation immediately instituted, the case may be cured. He discussed a case of recurrent rodent ulcer which was aggravated by radium and recurred after fulguration and local excision by electrosurgery. A more radical excision has finally apparently cured the patient. Dr. McCarthy closed the discussion and defined dermatology as something more than the mere use of mechanical modalities; that a diagnosis must be made of the condition, and the proper use of topical applications and internal remedies prescribed; and that the use of the various electrical devices, namely ultraviolet, should be restricted to selected cases." - in"The New England Journal of Medicine", Vol. 208, 1933.

Phlegmonous (Purulent) Enteritis

"This disease, a purulent inflammation of the submucous tissue of the intestines, is rare as a primary process. It is probably due to streptococcic infection, the jejunum being most frequently involved. Several epidemics have been reported among children one at the Sheltering Arms in 1010

and another in 1913. The stools were very offensive and complications such as septic pneumonia, otitis and meningitis occurred. This condition is evidently less fatal in children than in adults. Peritonitis is often present, but the purulent enteritis cannot usually be diagnosed as the cause, in my opinion until after operation. The writer has seen one case which was secondary to intestinal ulcers, where the bacteria (streptococci) appeared in great quantities in the stool. Autogenous vaccines and local irrigation (intestinal) were advised. Phlegmonous enteritis may be secondary to intestinal ulceration, to intussusception, or strangulated hernia."- Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Pneumonia, Treatment of

"In my life as a private nurse, I had the good fortune to work for a physician who advocated and used the cold-pack treatment for the relief and cure of pneumonia patients. I have seen wonderful results from this treatment, and I have in mind one particular case. I was called to nurse a man 62 years old, who was suffering from pneumonia. Upon arrival I found he had been ill for 3 days, unconscious for 2 days, had typical pneumonia symptoms, and registered a rectal temperature of 106.8 degrees F., with pulse of 132, weak and irregular, and respirations 46 per minute.

He was a well-built man and well kept physically, but seemed to be in a run-down condition nervously. Shortly following my arrival the attending physician called. He seemed alarmed because of the temperature and heart condition. Immediately he set to work to relieve the condition. A complete cold pack was ordered for 1 hour. The pack was applied and the patient closely watched by the physician himself. No medication of any kind was given, nor was any other treatment resorted to. The physician had entire faith in his treatment. Upon removing the pack and taking the temperature, we found a drop of 2 and a half degrees, the temperature then registering 104.3 degrees, the

pulse 108, respiration 38. The patient, in consultation, was examined carefully, and again the case was pronounced one of typical pneumonia. The regulation orders for such cases were left, such as diet, bathing, temperature, etc. A special order was given for no medication, a daily colonic flushing, a continuous local cold pack over the chest, and a general cold pack to be given every three hours for a period of 1 hour, until the temperature was reduced to 102 degrees. The physician then retired, leaving me in charge.

The local treatment was applied faithfully, and within one-half hour the patient was breathing freely at a rating of 32 per second. This was continued and seemed to give great relief. The second general pack reduced the temperature to 103 degrees, and the third to 101.8 degrees, whereupon the general cold pack was discontinued, as ordered.

The local treatment was continued with gratifying results, until at the close of the 3rd day of simple cold-pack treatment, the entire pneumonic condition was cleared up. The patient was entirely conscious, his temperature, pulse and respiration virtually normal, was on general soft diet, had no cough, and upon examination by two physicians his lungs were found to be free of any consolidation whatever. This condition seemed almost miraculous, occurring as it did without sign of a crisis.

Careful watch was kept over the patient, therefore, but each day seemed to bring added strength and vitality to the body which had been so wasted by the fever. The heart action improved, likewise the appetite. At the close of the 7th day, the patient was sitting up for 3 hours a day, was having full diet and was in good general condition. This occurred 2 years ago.

The latest report received from the patient was three weeks ago. A bronchial irritation still exists as a result of the disease, but the general physical condition is better than it has been for many years. This was one of the most remarkable recoveries of which I have ever heard. The simplicity of the treatment and the splendid results which followed have given me faith in the cold-pack. Since then I have had occasion to follow the same orders for that

physician, and have seen many good results in every case on which the treatment was applied." - Gertrude Harding, RN in "The Trained Nurse and Hospital Review", Vol.59, 1917.

Treating Pneumonia: The Microbic Doctrine Must Not Discount the Physician's Efforts at Rational Treatment

"Finley Ellingwood, in the Eclectic Medical Gleaner, lays down the following basic principles for the treatment of pneumonia, which we recommend our readers to cut out and paste in their hats:

1. Put out of the mind entirely the idea that the fever of the pneumonia is not harmful and the temperature need have no special attention. Undertake to reduce the temperature with mild measures from the very first.

2. Forget the theory of the microbic origin of the disease, but do not neglect to keep the patient in as near an aseptic condition as possible. Treat the disease with reference to the indications present, and do not treat it as a direct infection.

3. Local and general depletion are not only not beneficial in pneumonia, but are positively harmful. Physics must be avoided, but laxatives sufficient to keep the intestinal canal thoroughly cleansed and free from toxins may be prescribed. The colonic flush is sufficient for most cases after first complete evacuation.

4. Adopt no stimulating measures whatever until some condition arises which demands stimulation. Do not stimulate the heart under any consideration until signs of feebleness threaten to complicate the case. Avoid strychnine and quinine always until the fever has abated.

5. Cold applications have done good in some cases, and harm in very many. Hot applications do all the good the cold applications do and a great deal more, in that heat adds force and power to the venous capillaries, unloading the congestion and throwing off the tissue waste. Heat stimulates the arterial capillaries, carries off the products of inflammation, and conduces to the quick restoration of the normal condition. It is the logical, physical, reasonable, and highly scientific method. It can not possibly do harm.

6. Opium in any form in the treatment of pneumonia is not needed when the specific action of the remedies herein advised is thoroughly understood. It promotes the exact pathological conditions that the disease depends upon, and is thus positively contra-indicated.

7. The primary acute congestion that underlies a case of pneumonia, that just precedes immediately the inflammatory stage, should be considered as a separate and independent condition, and if recognized immediately can be overcome, and a normal condition restored before the actual acute inflammation of the lung structure supervenes. This is done in every case where pneumonia is aborted or jugulated." - in "The Medical Brief", Vol.38, 1910.

Management of Incipient Pneumonia

"When seen within 24 hours after the initial chill, the first step is the administration of a quick-acting purgative; In many instances an enema is given while waiting for the purge to act. A clean gastrointestinal tract will do much in avoiding autotoxemia". - in "The American Journal of Clinical Medicine", Vol.18, 1911.

Poisoning, Treatment of

"The Lambert-Patterson Method in Bichloride Poisoning: Immediately upon being called, the patient is to be lavaged with at least a gallon of water. If cream tartar is available it should be added in the strength of one teaspoonful to a quart, and at least a pint of this solution should be left in the stomach. Upon arrival at the hospital a Murphy drip is to be instituted at once, the material employed being potassium acetate solution, one dram to one pint. As it has been demonstrated that mercury is present in the bowel, stomach contents and sweat, as well as in the urine, the patient is to receive a daily lavage in order to prevent reabsorption from the stomach, a high colonic irrigation and a hot pack in addition. H.G.W., in Long Island Medical Journal." - in "The Trained Nurse and Hospital Review", Vol.60, 1918.

Poliomyelitis The Treatment in the Acute Stage

"Special indications requiring attention are the constipation and retention of urine, which should be met by copious enemata; not by drugs designed to stimulate peristalsis, which is deficient, not because of local toxins, but because of interference with innervation at the centre. Sometimes a catheter is required, but usually a flow from the bladder will follow a third or fourth enema, the first, indeed, often failing to expel any faeces." - Dr Tom A. Williams, MB, CM (Edin), Washington, DC in "The American Journal of Clinical Medicine", Vol.18, 1911.

Pregnancy, During

"The use of normal salt enemata, frequently, during pregnancy, especially when any symptoms of toxemia are present, is a valuable aid." - in "The American Journal of

Clinical Medicine", Vol.18, 1911.

Proctitis

"The rectum is very liable to bacterial infection, both from within and without, through the anal opening, so that ulcerations and periproctitis may occur. I will briefly refer to this disease, merely to serve as an index to the practitioner.

Treatment: Recurrent rectal irrigation with hot normal saline solution at 43°C, or in other cases with cold saline solution at 10° to 21°C, with the patient in the Sims posture for 15 minutes duration, is of value, once or twice a day, to relieve inflammation. Flaxseed-tea irrigation is also useful, or the other antiseptics described under Chronic Enteritis." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Conservatism in the Diagnosis and Treatment of Prostatic Hypertrophy

"Hayden (Medical Record, 23 March 1901) after carefully reading the records and histories of many reported cases of operation for prostatic hypertrophy, but especially those by the Bottini method, has been forcibly impressed by many of the following facts:

Rectal Irrigations of hot salt solution at from 43.C to 48.C, once or even twice daily, cause a marked improvement in the painful and even inflammatory symptoms referable to the prostate, bladder, and compressor muscle, and also in the size and consistence of the gland. The hot sitz bath and hot perineal applications are also sometimes serviceable." - in "The Therapeutic Gazette", 1901.

Prostatitis

"Prostatitis, characterized by urgent, frequent, painful urination, constitutional symptoms of sepsis, and the

detection of a tender swollen prostate by rectal examination, is usually relieved by hot sitz-baths and hot rectal irrigation of normal salt solution." - Dr. Edward Martin, MD in "A Handbook of Practical Treatment", Vol.2, 1912.

Chronic Prostatitis

"During the last 8 years a great deal of investigation has been carried on by McRae, Caqu, Squier, and others. The symptoms generally present themselves as referred pains, and their importance lies in the fact that they simulate other diseases from which they must be differentiated. Thus there may be attacks of intense pain simulating renal colic. Then, again, there are cases where there is a constant aching pain in some remote region, such as the arms, shoulders, neck or thighs.

Chronic irritation of the urethra and prostate have produced mental changes varying in degree from mild neurasthenia to dementia praecox. An interesting communication by Head, of Edinburgh, explained these referred pains. He showed that visceral lesions send painful stimuli to the part of the spinal cord supplying that region, and that from there they may be referred to some other part of the body which is supplied by the same segments of the spinal cord.

The prostate communicates with a large part of the body below the diaphragm. General practitioners have, for a long time, recognized that pelvic inflammatory lesions in women produce a wide range of referred pains, but not until recent years has it come to be realized that a great number of referred pains in men come from diseases of the male pelvic organs. It is important to remove any known causative factor, for without removal of the exciting cause it is next to impossible to clear up a chronic prostatitis.

A vaccine was prepared for each of the 30 cases, and was used in conjunction with the other treatment. While in some of the cases there was quite a marked improvement from the vaccine, in the long run the results were disappointing. No difference could be seen in the end between the cases where

vaccine was used and in those where it was not used. The cases which showed the presence of the colon type bacillus, or the Streptococcus viridans, were always the most obstinate and rebellious to treatment. Prostatic massage, when intelligently carried out, is certainly the most important method of treatment, and is the one means at our disposal to which we may turn with hope for a cure. Massage should be used on an average of twice a week. Since each massage dislodges pus loaded with numerous microorganisms.

Gratifying results were obtained by the use of hot rectal irrigations. In several of the stubborn cases, my office nurse administered the rectal irrigations at the patient's house, every second day, each treatment lasting nearly 45 minutes, using, during this time, a constant in and out flow of water, as hot as could be borne by the patient's finger. On the alternate days, the patient was instructed to use hot sitz baths. It is my impression that some of these cases would not have recovered without the rectal irrigations." - Dr A. Strachstein, MD, in "Etiological Factors of Chronic Prostatitis", New York Medical Journal, 4 May 1921.

Psychosis, Treatment of

"In this group we have taken, as examples, types with a more profound psychosis of longer duration and much more resistant to treatment. The usual type is one of depression and we all know these types are apt to run a much longer course than the manic type, and tend to become chronic, especially in the later years of life.

Case VIII — History: O. W., girl, aged 25, had good mental endowment, although the family history is bad from one point of view. Her father committed suicide 10 years before, although he was considered normal and a successful business man. Her mother was somewhat oversolicitous about the girl, her only child. She had been sheltered and treated as a child even at this late date, but apparently she

did not resent this when normal. She was an exceptional student, learned easily and was much interested in her studies.

She graduated from the normal school and in 1913 travelled abroad. Her mother accompanied her abroad. She was not a robust girl and was inclined to be anaemic, and as her mother had had tuberculosis she necessarily was anxious in regard to her daughter. In the fall of 1915 she accepted a position in a school in the northern part of the State to teach, and was very much elated and proud of the fact that she was about to realize her ambition. During the summer she had not been so well as usual and the doctor told her she had malaria, but it was a questionable diagnosis, as she had no chills, but some fever and malaise.

She started to teach in October and did very well for a time, but she was kept very busy with her work and spent considerable time preparing the lessons after school hours and at night. She had a heavy cold or "grippe," and her temperature was never normal in the evening. At first she did well, but soon her mother noticed that she seemed to be under constant nervous tension.

She found that she could not concentrate her mind on her work and that the discipline was getting beyond her. She had to give up her work and 2 weeks later came to Trenton. She talked continually of her work and at first had mild self-accusatory ideas which became much more prominent later on. She realized that she was not right, claimed that she had lost her memory and all that she had learned. She had a very poor appetite and lost ten pounds in a very short time.

She was extremely nervous and had frequent vomiting spells and other gastrointestinal symptoms. She had expressed ideas of suicide. She was much depressed and thought that she was no more good in the world and for this reason she wanted to do away with herself and relieve her mother of the burden of caring for her.

She was staying at a house in Trenton near the railroad, and her physician, Dr. William A. Clark, had made an appointment for-a consultation with the writer for 10 o'clock. At 8 o'clock she slipped from the house, ran to the

bridge, threw herself over and fell about 20 feet, landing on the track, and sustained Serious bruises, but no injury.

She was immediately taken to Mercer Hospital and I saw her a few hours later. She was very much confused and agitated. She had very pronounced ideas of self accusation and negation. She thought she was no more good, had lost her training, and was only a burden. She recovered from the effects of her fall, but her mental condition grew steadily worse and she had to be constantly watched to prevent her from committing suicide.

Examination

Nothing was found in the physical examination except an extremely rapid pulse and a slight rise of temperature in the afternoon. She was much under weight and presented the appearance of a seriously sick person. She was admitted to the Mercer Hospital, 10 November 1915, and remained there until April, 1916. Her blood was negative to the fixation tests, and the Abderhalden reaction (identification of a foreign protein in the blood) was positive for the thymus gland.

Treatment was instituted along the lines recommended by Doctor Ludlum, who saw her in consultation. She was given five grains of pituitary extract daily and daily readings of the blood pressure were made. She did not respond to this treatment and after a thorough trial it was discontinued. From the marked tachycardia and the slight rise of temperature I came to the conclusion that her condition could be better explained on the basis of an infectious process, although this was the first case in which I had come to any such conclusion.

She was growing worse instead of better, and it looked like a possible chronic type. She had persistent nihilistic ideas and a feeling that she would never be any good and wanted to die, and only by the closest watching was she prevented from carrying out her suicidal desires.

Treatment and Results

We began to give her colonic irrigations daily and cultures of the Bulgarian bacillus, as an examination of the faeces showed evidence of intestinal intoxication and a streptococcus was isolated that belonged to the viridans group and was present in much larger amounts than normal. She was given an injection of antistreptococcus serum and had a severe reaction, developing a rash that looked like the rash in serum disease, so it was not continued.

After this eliminative treatment was given for some time she seemed to improve gradually and was able to leave the hospital in April, 1916, five months after admission. She went south the following winter and since a short time after leaving the hospital she has been entirely normal, and is living with her mother in perfect harmony and has had no return of her psychoses.

Comment

I realize that this case may be criticized as not conforming to the rules that would definitely place it in the infectious group, and that the patient might have recovered, as so many do, without any treatment directed to the infection and its elimination. We realize that our methods at the time were very crude and inconclusive, and it was extremely difficult to establish the fact of the infection.

Happily, we now are able to demonstrate the infection much more satisfactorily. Her teeth were not examined very carefully, and as caps existed we made the error of not having them radiographed." - Dr Henry Andrew Cotton, MD, Medical Director of the New Jersey State Hospital; Lecturer in Psychopathology, Princeton University in "New York Medical Journal", 8 & 15 March 1919.

Pulmonary Tuberculosis, Treatment of

"Many cases of pulmonary tuberculosis are relieved decidedly as to fever, bodily force, mental attitude, and functional vigour throughout by colonic flushing. Indeed, intestinal autoinfection seems in many cases to retard progress in gaining weight and strength as much as the mixed infection which is so frequently met with as a complication of the primary tuberculosis." - in "Therapeusis of Internal Diseases, Infectious Diseases, Intoxications, Constitutional Diseases", Vol.2, 1913.

Rheumatism, Treatment of

"The 4 Emunctories: The Bowels, Skin, Lungs and Kidneys should be stimulated all the time.

1. The Bowels: This is done by Osteopathic massaging, and by Hydropathy using small doses of Epsom Salts and by Washing out the Bowels;
2. The Skin: By the vapour bath;
3. The Lungs: By pure air and deep breathing;
4. The kidneys:

a) By drinking plenty of pure water; a glass or 2 at each meal, and 10 glasses per day between meals.

b) Flushing the Colon with cold water. After the bowels are thoroughly cleansed, add a teaspoonful of common salt to a pint of water and inject it into the bowel, forcing part of it to the faecal valve by methods that will be described in the treatment of appendicitis. This will be absorbed and thoroughly flush the kidneys.

1. Cold water introduced into the bowels acts as a tonic, not only locally, but to the whole system. Hot water destroys the tonicity of the bowels and will do permanent damage to them, if continued for any great length of time. If, when

injecting cold water into the bowel, it should produce griping, stop for a few seconds and the pain will disappear. Should this not stop the pain, remove the nozzle and request the patient to expel all the water that has been thrown into the bowel; then the pain will stop at once, and the injection can be proceeded with. Patients who suffer greatly from constipation can best be relieved by using warm soap suds for the first 2 or 3 treatments; this will soften the hardened faeces and cause it to be expelled quicker and more thoroughly than any other solution will do.

2. Sometimes when treating patients every day, it is a good plan to add to the cold water a teaspoonful or more of common salt; this seems to act as a stimulant to the bowels and kidneys, causing the latter to excrete a copious flow of urine, which is as clear as spring water. Adding a tablespoonful of salt to three pints of cold water and wash the bowels out 2 or 3 times a week is very beneficial in cases where the large bowel is very sluggish. This system of washing out the colon with cold water, produces the most salutary effect on the stomach and bowels by relieving congestion caused by over-eating; also relieves headache almost immediately, when produced by the same cause. It will produce activity of the liver, skin, kidneys and other excretory organs. This system of flushing the bowels with cold water has the most beneficial effect on patients suffering from rheumatism; in fact, we now regard this as one of the most important features in the treatment of Chronic Rheumatism. It has proven itself to be of very great efficiency in clearing the diseased body of its poisons and in maintaining the highest degree of health and efficiency under all conditions.Since rheumatism is caused by autointoxication, it is obvious that the logical cure would be to correct these conditions. The cause of auto-intoxication is largely due to errors in eating; and to correct these errors, an anti-toxic dietary is essential." - Dr B. Curtis Miller, MD, Surgeon to Western Maryland Hospital, Cumberland, Md., in "The New and Scientific Treatment of Chronic Diseases", 1914.

Chronic Rheumatism

"Intestinal autointoxication is doubtless an important etiological factor in many of these conditions. Appropriate treatment to combat such a poisoning, as high colon irrigation, is often effective." - in "Treatment of Internal Diseases, For Physicians and Students", 1915.

"There are 2 types of conditions of toxic origin, arising from intestinal infection:

1. Acute. Which, if any type of arthritis may be correctly called "rheumatism," it is this type.
2. Chronic—Rheumatoid Arthritis. In both the affection is bilateral, more or less acute in its onset, and generally involving many joints of the body. The indication in the treatment of the former is to clear out the alimentary canal, and keep it clean. A strict non-protein diet, and castor oil followed by high colonic flushing daily with local static treatment as outlined will relieve, and generally cure the acute cases in a few days." - Dr William Benham Snow, MD, in "Medical Record", 15 April 1922.

Schizophrenia
The Pathogenesis of Dementia Praecox

"Do Dementia Praecox Patients Recover or Improve When Steps Are Taken to Prevent the Cecal and Colonic Putrefication with Which This Disease is So Constantly Associated. This is asking for a clinical experiment. It is not now a fashionable form of research, but it is one which appeals very strongly to the friends of the patient, and is not to be despised. In other articles especially in the reports published in Dementia Praecox Studies during 1918 and 1919 of the patients examined in my laboratory, it will be

noticed that I tried three distinct methods of detoxicating dementia praecox patients." - Dr Bayard Holmes, MD in "Dementia Praecox Studies", Vol. 2-5, 1921.

Sciatica

"**Question:** Man, aged 47, complains of continuous pain of a dull, aching character along the course of right sciatic nerve. Has suffered a good deal from rheumatism off and on. Heart appears to be normal. Appetite good, digestion fair, suffers a good deal from constipation. Is able to walk short distances with the aid of a cane, but the pain is always worse after exertion, and he fears he will be reduced to the use of a wheel chair. Editor, please give treatment for this case, and would like to hear from any of the brethren experienced in similar cases. - Dr H. G., MD, New Jersey

Answer

A partial impaction of the bowel and intestinal flatulence may cause sciatica. If these conditions are present, regulate the diet, cutting out saccharine and starchy matter to a large extent, and evacuate the bowels by means of saline laxatives and high enemas. A hot salt pack for the leg is helpful in many cases. Marigol liniment is a good application for neuralgic nerves." - Dr J. J. Lawrence, AM, MD, Editor of "The Medical Brief", 1905.

"If my conception of the cause of some sciaticas is correct, the rational line of treatment is to assume that the sacro-iliac joint is the seat of a so-called rheumatic infection. Having eliminated gross disease in the pelvis and a tuberculous infection, it is necessary to exclude any possible source of infection-as in arthritis in any other joint. The main treatment at the Royal Bath Hospital is hydrotherapy, and I have found the sulphur bath with subaqueous douche most valuable.

This may be followed by the Scotch douche or a massage douche bath when the acute pain has subsided, but massage given in the acute or subacute stage aggravates the

condition. In conjunction with this, sulphur water by the mouth ensures a complete daily evacuation of the bowels, and in suitable cases Colon Lavage with sulphur water is employed. A course of treatment of this kind usually extends over 3 or 4 weeks, and in the majority of cases results in great amelioration, if not complete disappearance of all symptoms." - Dr W. Yeoman, MB, Lond., in "The Relation of Arthritis of the Sacro-Iliac Joint to Sciatica, with an Analysis of 100 Cases", The Lancet, 1928.

Treatment of Sciatic Neuralgia from organic origin

"To effect a cure, the evils must be counter-balanced and eradicated. The toxic poisons must be eliminated and a dietary, supplying an abundance of rich blood, must be followed. Eliminate the poisons by a sweating process, and thoroughly Cleansing the Bowels." - Dr B. Curtis Miller, MD, Surgeon to Western Maryland Hospital, Cumberland, Md., in "The New and Scientific Treatment of Chronic Diseases", 1914.

Sepsis, Treatment of

"**Sepsis:** A new method of treatment of sepsis is advanced by Wernitz (Centralbl. f. Gynec.). In cases of severe sepsis he rinses out the body by slow, protracted irrigation of the intestines with a 0.5 to 1% saline solution injected under low pressure. The reservoir is lowered occasionally so as to allow the fluid to flow back out of the intestines. The irrigation is then continued with fresh fluid.

In a very severe case of puerperal sepsis he continued the injections for 12 hours out of the 24. The patient passed about 5 quarts of urine during the time. The temperature rose when the injections were discontinued and fell when they were resumed. This constant flushing cleanses the intestinal tract, promotes general secretion and excretion,

increases elimination, especially through the skin, without producing any general depression. Sweating stops when the irrigations are suspended. The vascular system is never overloaded as in subcutaneous injections. The author has obtained marvellous results with this method, especially in a case of puerperal sepsis. one of acute peritonitis and two of septic abortion. The Med. Standard." - in "New England Medical Monthly", 1905.

"The continuous irrigation already referred to is a measure of the greatest benefit in conditions such as sepsis, and failure of elimination by the kidney." - Dr Henry Enos Tuley, MD in "The Diseases of the Child", 1913.

Septicopyemia, Treatment of

"**Symptomatic Treatment:** The symptomatic treatment offers many details of importance. The possible dangers from exertion must be avoided by proper nursing. Fresh air treatment is often of decided advantage, and patients with severe symptoms should be in the open air, with all the necessary details. On general principles, as well as on account of the clanger from imperfect excretion of waste products in cases of infection, the alimentary canal should be unloaded early and retention prevented by the use of enemata or colonic flushing at intervals. The function of the kidneys should be carefully observed, and stimulated by a sufficient amount of water regularly. Although the early hopes of tissue irrigation have been disappointing, the systematic use of physiologic saline solutions has advantages in washing out toxins and in keeping up the vascular and cardiac tone. The gastric irritability of sepsis should be treated with cathartics and diet. The diarrhea, which may be an important, even vital, factor, should be treated by cathartics and colonic flushing". - in "Therapeusis of Internal Diseases, Infectious Diseases, Intoxications, Constitutional Diseases", Vol.2, 1913.

Septic Endocarditis, Treatment of

"A blood-culture should be the first, and not the last, step in the treatment. It is not only the best means of making an early diagnosis and a probable prognosis, but will assist greatly in the treatment by Suggesting appropriate measures, and especially by excluding drugs that consume the patient's strength. Complete rest is the second step. Removal of the primary infection is the next step. This focus can usually be found from the history and by physical examination.

The tonic or supportive treatment should combine all that we have learned about the value of sunshine, pure air and selected food in tuberculosis, blood tonics in anaemia, hot water between meals and colonic flushing in auto-intoxication, and light massage and good nursing in malnutrition. Not one but all of these measures in wise combination must be employed. The question of specific medication by means of an autogenous vaccine is still on trial. The principle seems right and some reported cases undoubtedly testify to its value." - Dr Soren P. Rees, MD Minneapolis in "The Journal of the American Medical Association", Vol.59, 7 Sep. 1912.

Scarlet Fever Treatment of

"At the annual meeting of the New York State Medical Association, 17th to 20th October (Med. Record, 22 October 1904), Dr Louis Fischer, MD read a paper entitled Clinical Observations in Scarlet Fever. The heart and the pulse should be the true deter mining guide as to the prognosis and the condition of the patient. The diet should be liquid, principally of milk and alkaline waters.

The Emunctories should be stimulated. A hot saline colon flushing, 1 or 2 litres at a temperature of 46 to 48 C. should be given once a day after the first week, regardless of

the necessity of the same. It stimulated diuresis, cleansed the bowel, and nourished the blood." - in "The British Medical Journal", 12 Nov. 1904.

Hot-Water Irrigations of the Bowel In Scarlatinal Nephritis

"Saundby, in the Birmingham Medical Review for September, 1901, quotes Kerley, who recommends irrigation of the colon with hot water as the best means of restoring the functions of the kidney in scarlatinal nephritis. It should be employed whenever the quantity of urine is diminished or when convulsions occur.

In a child aged three years, 500 to 750 cubic centimeters of water at a temperature of 43°C. should be introduced by means of a rectal tube passed into the rectum for a distance of 2½ centimeters. If the water is returned at once it must be repeated, and irrigation should be continued every 6 or 8 hours. After 3 or 4 administrations the kidneys generally commence to act and abundant diuresis takes place." - in "The Therapeutic Gazette", 1901.

Treatment of Scarlatinal Nephritis

"Dr. Robert Coleman Kemp read a paper on this subject. He looked upon scarlatinal nephritis as a disease sui generis. It is a diffuse nephritis, developing, as a rule, about the third week, and accompanied by general anasarca.

The urine contains a large quantity of albumin and numerous casts of all varieties. Dr. William H. Thomson had first called his attention to the fact, that often the first indication of the onset of this affection is a sudden fall in the specific gravity of the urine. This initial fall was followed in a short time by a sudden rise in gravity, associated with a diminution in the total quantity of the excretion. At this stage there was engorgement of the renal vessels, and no time should be lost in instituting active treatment.

Frequently before the appearance of albuminuria, there would be a marked increase in the urates. Vomiting, diarrhea, headache, and twitchings of some of the muscles often preceded uremia.

Rapid enlargement of the liver was an exceedingly unfavorable sign, usually pointing to a fatal issue. The speaker advocated the administration of oxygen gas to these cases of scarlatinal nephritis, claiming that it was not only a good cardiac stimulant, but aided materially in eliminating toxins. Another useful measure was enteroclysis, using a saline solution at a temperature of 43.C to 48.C for 15 or 20 minutes at a time, and as often as 3 or 4 times a day. Experience showed that, as a rule, from three to 5 times as much urine was secreted as the quantity of saline solution introduced.

Carbonated baths at a temperature of 37.C to 38.C were also useful. Dr. Charles G. Kerley said that at one time he had care fully studied, in institution practice, an epidemic or 109 cases of scarlet fever, and that most of these had given evidence of the disease within 5 days after the time of infection. However, in one case, the period of incubation had been 7, in another 12, and in still another, 14 days.

The "strawberry tongue " is of no diagnostic value, and not infrequently the rash is so slight and so transient as to mislead the physician as well as the family. However, an invariable accompaniment of scarlet fever, even though the temperature was but slightly elevated, is marked congestion of the throat. Ordinarily quarantine would have to be maintained for 4 to 6 weeks. He emphasized the fact that the mildest cases were capable of communicating to others the severest type of the disease, and that inunctions not only lessened the chance of contagion, but allayed irritation and reduced the fever. In the treatment of scarlatinal nephritis his chief reliance was on irrigations of the colon with normal saline solution at a temperature of 43.C." - in "Archives of Pediatrics", 1900.

Dilatation of the Stomach

"Riegel describes a post-operative dilatation, especially following abdominal section. Some of the symptoms are apparently those of obstruction and yet secondary operation has demonstrated that such does not exist. The stomach is enormously distended with gas and there is vomiting. Lavage is of special value, as are also Enemata, or Irrigation of the Bowel. This class of cases would seem to me to be the manifestation of an atonic condition, a paresis, so to speak, of the entire gastrointestinal tract, the stomach as well as the intestines being distended.

Dilatation of the stomach I believe to be an important factor and the general condition seems to correspond to our former nomenclature of postoperative intestinal paresis, which might be more correctly called gastrointestinal paresis. It would seem to be due to some shock of the sympathetic system, from the operation; at times to the anesthetic and later to uremia, or to sepsis. Olive oil in cases of benign stricture as a palliative, are of value. Each case should receive the treatment appropriate to the existing condition. Hygiene, diet, massage, electricity (intragastric preferably at times) and proper regulation of the bowels are of value. Hydrotherapy will often be found useful to tone up the general condition.

Gastroptosis

In speaking of gastroptcsis. it is not my intention to describe typical Glenard's disease, enteroptosis, gastroptosis and nephroptosis, with the symptoms as given in the text-books, but to refer only to those cases which vary from this fixed type so familiar to you all. There may or may not be nephroptosis, and enteroptosis in some cases cannot be detected by the ordinary methods of physical examination. Ptosis of the stomach, however, is present and, of necessity, enteroptosis accompanies it. The symptoms point chiefly to the stomach. Hyperchlorhydria (hyperacidity) hypochlorhydria (diminished acidity) or achylia gastrica

may all occur in gastroptosis. This is also true of dilatation of the stomach and hence the determination of the position of that organ, in order to secure the best method of treatment, is of great importance.

Transillumination of the stomach I consider the most scientific method of differentiation between these conditions. The question has arisen in my mind as to whether the ptosis of the intestines invariably precedes the descent of the stomach, as is described by Glenard, and whether in some cases of chronic dilatation of the stomach the ligaments may not gradually stretch and ptosis of the stomach follow, as a primary condition, and enteroptosis be the sequel. In Case XXIX, an excellent picture of the stomach was secured and the pyloric end was clearly seen. The lesser curvature had lost its relation to the diaphragm, but just barely so, the stomach was dilated and no nephroptosis or enteroptosis could be detected. The change in position of the lesser curvature constituted a gastroptosis, slight as it was. I have seen 2 similar cases and these facts are certainly suggestive. Furthermore, in gastroptosis, I believe we have the chief etiological factor in "mucous colic."

Ewald has pointed out that ptosis of the colon frequently exists in this condition and Einhorn has demonstrated that gastroptosis is present in a large percentage of cases of "mucous colic," as is also achylia gastrica. Mucous colic is present also in many cases of Glenard's disease. Mucous colic is not present in all cases of gastroptosis, any more than is haemorrhage in all cases of typhoid fever. All cases of mucous colic are neurasthenic, but all cases of neurasthenia do not suffer from mucous colic. On the other hand, there must be an underlying cause both for the neurasthenia and the mucous colic, since these two constitute, I believe, a "vicious circle" and react on each other. As far as my own experience is concerned, I have been able to demonstrate gastroptosis as an etiological factor of mucous colic. The abnormal secretion of the stomach undoubtedly aggravates this condition.

It would seem that the ptosis of the intestines, which of necessity accompanies the gastroptosis and the resulting

changes in the caliber of the lumen of the gut at various points, fully explain the cramp-like effort to expel the mucus and the tubular-cast shape of the mucus which we see at times. Furthermore, injections of olive oil appear to relieve the attacks of colic, just as it does given by mouth, in the case of stenosis of the pylorus. I do not believe the mucous discharge is due to a true inflammatory condition, but to changes in the circulation due to the abnormal position of the intestines.

Where there is a narrowing at one point there must of necessity be a dilatation and congestion in the intestine above it. I believe that adhesions, rectal obstruction, or irritation and other such causes given by our authorities, are merely accessory factors in the vicious circle. During the acute attack, rest, antispasmodics, such as asafetida and light diet, as suggested by Dr. Thomson, are of value. Later, small doses of castor or olive oil, given internally, have an excel lent effect. High enemata of olive oil are of service, alternating with irrigations of normal saline solution, weak flaxseed tea, or gum arabic solution (3ii. to 3 iii.) to the quart of warm water. I have had excellent results from the injection of carbonic acid gas, as advocated by Dr. Achilles Rose.

I agree with Dr. Einhorn that the diet should depend on the condition found in the stomach. The patient should be well fed, however. I invariably apply abdominal support in cases of "mucous colic", and have always found relief therefrom. This is further suggestive of the gastroptosis and enteroptosis. Rest treatment is of value in some cases, with hydrotherapy. The bowels should be regulated and nerve tonics administered, change of climate is, at times, beneficial." - Dr Robert Coleman Kemp, MD, Professor of Gastro-Intestinal Diseases N.Y. School of Clinical Medicine in "Observations on Dilatation of the Stomach on Gastroptosis," Medical News, 6 August 1904.

Tonsilitis

"The systemic symptoms: fever, headache, etc., only develop when there is considerable infection taken up. Therefore, the following course should be instituted early in the case. The first indication is to increase local circulation, and the best therapeutic agent is heat. In the first place confine the patient as much as possible to the house. Children should be put to bed. By staying indoors the patient breathes warm air only, usually free from dust and other irritating substances.

The external application of the hot water bag greatly increases the venous circulation and so relieves the congestion, as does also the drinking of hot water. This drinking bathes the parts as well as adding a large amount of water to the bowels and so increases the action of both bowels and kidneys, and washes out the infection as it is taken up by the system, the drinking of water also increases arterial tension which prevents stasis. A local remedy must fill two requirements. A detergent antiseptic and a degree of permanency of effect. Many of the remedies are antiseptic, but they are not exosmotic enough to increase the circulation, or else their effect is too transient and their use tires the patient. Locally I have grown to use but one remedy and that is Glyco-Thymoline.

I prescribe equal parts of Glyco-Thymoline and water to be used in an atomizer. I get better results with this than any thing else I have used. I always use it in an atomizer because gargling is necessarily painful, while a spray is not. Glyco-Thymoline promptly relieves the dry congested condition, and by adhering to the tonsil protects it from external irritation. Its anodyne effect is immediate and lasting. I instruct my patient to use it frequently and because it is pleasant and its action prompt, I find that they need no other instruction but use it thoroughly.

As Glyco-Thymoline is non-poisonous, it makes no difference as to how much is swallowed and its action does not upset the stomach, but tends rather to assist the destruction of any of the plugs that may be swallowed. I

find by this method of treatment that my cases are nearly all cured in 24 to 36 hours. That I need no other medicament at all, because the system does not become clogged with toxines.

I report below 2 cases, not for their originality, but because their prototypes are constantly occurring to every physician.

Case 1: Baby J., child 6 years old, had been sick for 2 days, and the previous day the mother had seen sore, throat and treated it with salt, vinegar, etc., to which the child rebelled. When seen, I put the child on spray of equal parts Glyco-Thymoline and hot water and allowed sipping of hot soups and liquids; advised use of spray every 30 minutes to 1 hour. Next morning mother telephoned I need not come as the child was perfectly well.

Case 2: Mr. H. K., subject to repeated attacks of tonsilitis, but refuses tonsillotomy because he is afraid it may injure his voice, he is a vocalist.

Several months ago I recommended spraying the throat with Glyco-Thymoline one-third strength, twice daily, and whenever the throat is at all sore to use it frequently. He has not had an at tack of sore throat all this winter." - Dr Charles J. Drueck, MD, Professor of Physiology at the Illinois School of Dentistry, Lecturer to the Nurses of Mercy Hospital, in "The Medical Standard", 1909.

Toxic and Lumbar Backaches

"Toxic and lumbar backaches are treated with laxatives, diuretics and Colon Irrigation. Some are given salol, salicylates or iodides. To the congestive type are administered ergot, digitalis, strychnin and bromides. The anaemic are given iron and tonics." - Dr. William E. Parke, MD in "Backache and its Treatment", New England Medical Monthly, Vol. XXV, January, 1906.

Trichinosis

"Trichinosis is acquired by eating pork or pork products (ham, sausage, pork-roll) containing the Trichinella Spiralis — synonym. Trichina Spiralis. On reaching the intestine, the wall surrounding the parasite is digested and the trichinella escapes.

Fertilization takes place before the end of the second day. The gravid females promptly penetrate into the lymph-spaces of the intestines or of the mesentery and deposit their young. The larvae are carried, chiefly by the lymph-stream, but also by the blood, to the muscles, where they become encysted. The first brood reaches its destination, the muscles, in from 9 to 10 days. The symptoms are pain, fever, dysphagia, dyspnea, edema, sweating, and eosinophilia. The disease may be mistaken for typhoid fever. The normal host of the trichinella is the rat.

Treatment

If the infection is recent, lavage of the stomach, irrigation of the bowel, and active purgation are indicated. Calomel, senna, or castor oil may be used. Hemmeter in "Diseases of the Intestines", recommends benzine internally and for colonic irrigation. Internally, it is used in a mixture with mucilage of acacia and peppermint water in doses of lo to 12 grains (0.6-0.75) every 2 hours." - Dr. David Riesman, MD in "A Handbook of Practical Treatment", Vol.2, 1912.

Tuberculosis

"The very fact that impaired assimilation is so early a complication in tuberculosis is an evidence of the plausibility of this hypothesis. To me this deduction is something more than a mere hypothesis, it has all the authority of a recognized fact. If this part of the treatment is neglected and the lower bowel permitted to become a receptacle for the retention and absorption of material containing so much "materies morbi" as the tubercular

sputum, then the physician must not be surprised if in spite of his efforts in other directions, his patient does badly.

So strong is this belief that it has become my custom to order a high enema once or twice a week, so that the lower bowel may become well emptied and in as aseptic a condition as possible.

I have also found that often the afternoon fever is greatly diminished, but that it may return if the flushing is neglected, another evidence of its value." - Dr William Porter, AM, MD Physician in charge, Mount Saint Ann's Throat and Chest Hospital; Professor of Physical Diagnosis and Diseases of Chest Beaumont Medical College; Physician to the Throat and Chest Department of the Protestant Hospital; of St. Luke's Hospital; of St. Joseph's Sanatorium; Clinical Lecturer City Hospital, St Louis, MO., in "Two Practical Points in Care of the Tubercular", JAMA, Vol.34, 1900.

Typhoid Fever, Treatment of

"Diluent drinks and colonic flushings with normal salt solution afford a more rational treatment by improved excretion than all the antipyretic and antiseptic drugs. - Dr Frank Billings, MD in "JAMA", Vol.34, 1900.

"The hot jug to the feet must never be neglected. The bowels are to be washed once or twice a day with warm water enemas. The symptoms must govern the frequency. Always one enema a day until there is no need, and the indication of need is fever. So long as the temperature is 38° C., and over the enemas must be used once each day." - Dr John H. Tilden, MD in "Typhoid Fever", 1909.

"It seems to me that elimination is the keynote of successful treatment in this disease and this should be instituted at the very incipiency of the disease. Salines should be used freely at the beginning of the disease, and occasionally throughout the course of the disease, but not to the point of producing too much depletion or weakness, and should be alternated with colonic flushing.

In a few very stubborn cases, accompanied by hyperpyrexia and signs of fastly-ebbing vitality, I have irrigated the bowels thoroughly and as high as the tube would pass, and this procedure was invariably followed by the passing of inspissated feces with a drop in the temperature, and an improvement in every way. This is better treatment for this particular trend of symptoms than strychnine, coal tar, and even the cold bath.

Castor oil is often an indicated remedy, and, if so, it should be given with a bold hand. If scybillac and hardened feces are hung up in the angles and turns of the bowels, castor oil melts this away as no other internal medication does. If tympanitis is present, turpentine may be advantageously incorporated with the oil, and also used externally. Keep the intestinal canal clean, or at least free from foci from which reabsorption takes place, and antiseptics will be unnecessary.

Ordinarily, I find the cold bath as inferior as an antipyretic agent to warm or tepid spongings, as the cold inhibits dermal elimination, and drives the blood internally toward the source of the disease. Occasional cool spongings are grateful to the patient, and invigorating as well. A good rule is to give a typhoid patient a drink of water or lemonade, or other fluid largely aqueous in character, every hour when awake.

The patient should be taught to sleep at night and if his condition is not alarming should not be too closely attended. An occasional dose of codeine or Dover powder or bromide solution may be needed to procure sleep. Endeavour to keep the patent clean, internally and externally, and see that he is nourished properly. I think the first four or five days the patient should have a very minimum portion of

nourishment in order to let the alimentary canal become thoroughly cleansed. After that considerable nutriment in suitable form is needed to offset the wear and tear of the disease and to keep the person from sinking into a low state of inanition that suggests the valley of the shadow of death. Remedies which act powerfully upon the vasomotor function in one way or another should be given sparingly if at all. Strychnine, quinine, digitalis and many other remedies may be all right at times, but improperly used may wreak great mischief." - Dr W. T. Marrs, MD, in "The Medical Brief", Vol.38, 1910.

"Prolonged colon irrigations with warm normal saline are sometimes efficient. They supply fluid, promote diuresis, relieve the toxaemia, stimulate the heart, and reduce tympanites." - Dr Norbert Ortner,MD in "Treatment of Internal Diseases, For Physicians and Students", 1915.

Exclusive Soup Diet and Rectal Irrigations in Thyphoid Fever

"To diminish the number of pathogenic organisms in the human body is to-day recognized to be the best treatment of infected persons. In typhoid this object can be attained successfully by following two distinct indications, namely:

1. By promptly removing all remnants of food from the alimentary canal, and then permitting only such articles of diet to come in contact with the infected surfaces of the intestine as will offer but poor culture media for the typhoid bacillus and its neighbours;
2. By systematically irrigating the rectum during the entire course of the disease.

To give a cathartic at the beginning of an attack of typhoid is universally practiced, but also the early replacement of the infected alimentary contents by food which will even feed

the remaining bacteria better than the removed solids, namely: by milk. This is like emptying a dish of decomposing solid food and immediately filling it again with fresh milk, in the expectation of keeping the latter sweet.

Until the chief cause of gastroenteritis in children had been demonstrated to be the manure bacteria that drop into the milk used for infant feeding, their rapid multiplication during warm weather and their action upon the children who swallow them, and until the imperative therapeutic necessity had been established to withhold all milk from an enteritic patient until he was cured, our treatment of gastroenteritis was but in a doleful state. To my mind, patients fed on milk during an attack of typhoid (a specific form of enteritis) are but little better off today than our former little patients were during an attack of summer complaint, with milk and opium-mixtures in their intestines.

If most of our typhoid patients fed on milk were not adults but children, like in gastroenteritis, the percentage of typhoid mortality of today would equal that of gastroenteritis of former years. For not alone is the typhoid bacillus to be considered in the bowel of the typhoid patient, but also the many other alimentary bacteria that take part in the attack on the human organism during this disease. If milk is the best food of intestinal bacteria during enteritis without typhoid mixture, then I see no reason why it should be less favourable for their sustenance and propagation during enteritis caused by them and the typhoid bacilli.

Reflections of this nature caused me to try the possibility of feeding typhoid patients on a fluid diet not including milk. My first case so fed was under observation during October of 1889, and since then none of my typhoid have been given milk until the rectal temperature has been normal for at least two days. It was found that at the beginning of the attack that plain, cold water sufficed during the first 24 to 48 hours after the initial purge, although, of course, much depended upon the gastric condition of the patient. Then soups made of meatbroths, containing oatmeal, barley, rice, and peas, strained, of course, and well

spiced with salt and pepper; and after another 2 days lentil-soup and the yolk of a fresh egg added to the oatmeal, rice and barley soups, were given, so as to allow an adult 250ml of 2 kinds of soup alternately every 3 hours, and smaller quantities to children according to age, 5 meals in all were given during the day.

At night only fresh, cold water was given, ad libitum, as well as during day time, in the intervals between the meals. 5 to 15 drops of the diluted hydrochloric acid were given before each meal, unless hyperacidity prevailed. No other medication was employed, irrespective of the height of the temperature or the frequency of the stools. Alcohol was but given in small quantities to habitual topers during the first few days, at night.

Occasionally cold, strong, black, sugared tea was used as a stimulant. In July, 1889, Backhaut; an assistant in Prof. Mosler's clinic at Greifswald, published a report (Deutsch. Med. Wochenschrift, 18 July 1889) on the treatment of typhoid patients by rectal infusions of ½% tannic acid solutions. The good results obtained were attributed to the germicidal action of the tannin.

I ventured to suggest to Prof. Mosler, by letter at the time, that the twice daily executed cleanings of the lower end of the colon might be the cause of the observed beneficial effect upon his patients; and from that time on every typhoid patient under my care was given two to four rectal enemata of plain warm water daily. It was soon found that rectal tubes were harmful and unnecessary, and that if the buttocks of the patient were but elevated upon the bed-pan, the water flowing gently from the fountain syringe, hanging about three feet above the patient, would dilate the lower colon sufficiently to dilute and carry off the accumulated typhoid feces.

Furthermore a short tip introduced through the sphincter ani cannot possibly reach typhoid ulcerations in the descending colon. Since the summer of 1889 these therapeutic measures have been employed by me in every typhoid patient in private practice as well as during my 10 years of service in St. Francis Hospital in New York. In all

153 cases were treated in this manner. Seven cases ended fatally, of which 3 were brought in moribund and four had complicating bilateral pneumonia.

Results

1. Delirium, headache, insomnia, nausea, vomiting and tympanitis usually disappeared within forty-eight hours of treatment.
2. Tympanitis, nausea and vomiting never developed in any patient, even when complicating pneumonia was present.
3. The fur on the tongue disappeared within a few days.
4. Appetite came frequently on the fourth day of treatment, even when the thermometer registered 39 to 40 C.
5. Even excessive diarrhea (15 to 25 daily stools) disappeared invariably within the first week of treatment.
6. In all uncomplicated cases the temperature began to decline within twenty-four to 48 hours after the beginning of treatment and invariably would reach the normal figure with in 10 to 12 days.
7. In cases complicated by pneumonia, nephritis or phlebitis when treatment began the temperature usually remained in accord with the inflammatory conditions found until these also disappeared, while the cerebral, gastric and intestinal disturbances usually subsided as rapidly as in the uncomplicated cases, excepting anorexia.
8. Complications, when not present at the start, were very rare and then usually developed within the first 2 days.
9. Intestinal haemorrhage was noticed in 3 cases, none ending fatally. Perforation did not occur.

Final Remarks

It was immaterial whether this treatment was begun in uncomplicated cases during the first, second, third or fourth week of an attack, for the above mentioned improvement always began within 48 hours, exactly like in gastroenteritis. Cases coming under treatment during the first 2 weeks of

illness usually presented more marked and rapid improvement during the first 4 days of treatment than older cases. That milk given to a typhoid patient will cause a new rise of temperature after days of improvement on a soup diet, I have demonstrated time and again to my house-staff in the hospital. Many of the pneumonia attacks complicating typhoid are due to secondary infection through the blood by organisms finding their way to the lung tissue from the intestine, like in the systemic infection of enteritis in children.

By diminishing the quantity of absorbable toxic material in the intestine by appropriate diet and frequent rectal irrigations, we cut short the supply for systemic and pulmonic invasion, and materially aid the restitution of normal conditions. Typhoid bacilli will readily grow in soup, but this food is so rapidly absorbed that in comparison to milk curds it cannot aid their sustenance long enough to injure the patient. During the last 10 years I have alluded to this plan of treatment in 3 publications, in Medical Record of 12 September 1891; New York Polyclinic, March, 1893, and Medic. Monatsschrift of July, 1894. In the June number of the American Journal of the Medical Sciences of 1894, Prof. Yeo, of King's College in London, England, also called attention to the dangers of indiscriminate milk-feeding in typhoid. Other literature has not come to my notice." - Dr A. Seibert, MD, New York read before the American Pediatric Society, Washington, DC, in "Archives of Pediatrics", 1900.

Treatment of Typhoid Fever

"We are quite sure that we have learned some things about the treatment of typhoid fever that may be considered fairly well settled, and that will not have to be unlearned or that will be displaced by something else. They are simple and elementary, but they will stand the test of time and experience. We have learned that filth breeds disease; therefore we keep our patient's body and surroundings as clean as possible.

We have learned that food satisfies hunger and repairs the

wastes of the body; so we feed our patients food that is easily assimilated. We have learned that water quenches thirst and washes out the emunctories, and we urge our patients to drink freely of distilled or boiled water. We have learned that oxygen assists in purifying the blood; and we insist upon thorough ventilation. We have learned that medicines are required to meet certain indications as they arise, and no more, for there is no specific. We are now learning that intestinal antiseptics will largely prevent bacterial multiplication and putrescence in the intestinal canal and thus limit the toxine poisoning if administered early.

This, combined with dietetics, hygienics and hydrotherapy, constitutes our main reliance in combating typhoid fever. If the serum treatment which is now being tested proves successful we shall have added another helpful remedy. To prevent the spread of bacteria in the soil and drinking water, we should thoroughly disinfect all of the discharges from the body. Many of the suggestions that I shall make for the care of typhoid fever may seem to be of little importance, but it is in these small details that we most often fail in doing our duty, and the patient and community suffer in consequence of our negligence. It may be impossible for us to carry out in practice every detail, owing to circumstances over which we have no control; but if so, let us approximate the ideal as nearly as possible. Suppose we have a case of typhoid fever to treat. How shall we proceed?

Select the best room in the house for the purpose of having in view light and ventilation and as far removed from the rest of the family as possible. If there is a carpet on the floor, have it removed and the floor mopped. Remove pictures, curtains, clothing, books and all unnecessary furniture from the room. Have the walls and ceiling dusted and the woodwork cleaned, putting the environment in the best possible sanitary condition for a long siege. Carefully prepare the bed. Put a clean mattress upon wire springs—the mattress being covered with oil cloth, over which put clean sheets and pillows and just enough covering to keep the patient comfortable and no more. After the patient has

had a bath, or, better, been washed with soap and water, put on a loose gown or night-shirt, and put him to bed.

The pillowcases, sheets and nightshirt should be changed daily, or immediately if soiled. All soiled clothes should be put in carbolic acid water, 1 to 20, for 1 hour before being boiled and washed. The stools and urine should be put in lime water or carbolic acid for one hour before being emptied into the closet. Flies should be excluded from the room by screens. All of this means care and labor, but if these measures were strictly enforced typhoid fever would be less common and possibly might be wholly prevented in the near future.

We have thus far directed our attention to cleaning up and keeping clean. We will now consider the matter of cleaning out. Who have given this subject careful thought and observed the results closely, are as confident that cleaning out the intestinal canal in the early stage of the disease, and keeping it as clean as possible from bacteria and putrefaction, is as necessary as keeping the outside of the body clean.

In a majority of the cases the bacteria causing the disease enter through the intestinal canal and there multiply and establish colonies before they produce the typical symptoms. It is in the intestinal canal that the most prominent lesions occur, and it is here that the bacteria and a mass of decomposition accumulate. The bile and intestinal fluids, which are nature's disinfectants, are deficient. Certainly the plain indication is to clean out this offending material by giving from 5 to 10 grains of cathartic, to be followed by a saline; or, it opposed to the cathartic, give salts or oil or something to empty the intestinal canal.

When this is done commence with some antiseptic, give a drachm of listerine every four hours. I have found this more agreeable to the patient, and it will deodorize the stools more quickly. The antiseptic should be given till the stools are deodorized.

To be most effective the antiseptic should be given early. If you wait for the Widal or Diazo test or the appearance of the rose colored patches to confirm your diagnosis you have lost

the best opportunity to relieve your patient with antiseptics.

Now what is the result of this treatment? Dr. William F. Waugh, of Chicago, says:

> *"As soon as the stools are deodorized the fever falls a degree or more; the headache and back ache subside, the diarrhea, tympanites and abdominal pain cease; the hebetude and nocturnal delirium vanish; the tongue grows moist and loses its distinctive typhoid appearance; in a word about a third or more of the symptoms totally disappear when this has been done and the case is reduced to the category of a mild or even abortive form and is easily managed."*

A limited trial of this antiseptic treatment in hospital and private practice convinces me that this is no imaginary or fancy picture. You may say that the bacteria are embedded in the intestinal wall, the mesenteric glands, the spleen and blood and how do you expect to destroy these? We do not expect to destroy them, but we do expect to cut off the supply largely at the fountain head by arresting the propagation of large colonies in the intestinal canal and disinfect it, and when that is done nature will soon exterminate the rest.

The patient should be sponged daily, and oftener if the temperature is high, and an ice cap kept to the head. If the temperature is above 40° C., give a cold water enema or a tub bath, and repeat as often as necessary. When the fever begins to abate, diminish or omit the antiseptic. Should tympany be trouble some, apply hot turpentine stupes to the abdomen, and give 10 to 15 drops of the turpentine in some mucilage every 3 hours. If the bowels fail to move, give a high antiseptic enema. This might be given daily with great benefit. If there is much delirium with insomnia, give 5 grains of Dover's powder or ten grains of bromide of potassium at night. Keep the nose and mouth cleansed. The small bits of cotton or cloth used to clean the mouth of

remnants of food and sordes from the teeth should be burned. To avoid bed sores, turn patient on one side and bathe the back daily with alcohol.

This relieves pressure, exposes the back to the air and prevents hypostatic congestion. Do not allow the back or nates to remain soiled with feces or urine. Should hemorrhage occur, keep patient absolutely quiet and let him swallow bits of ice and depend upon opium, turpentine, selecting the remedy that appeals to your judgment. Cases of perforation and peritonitis are nearly always fatal, and should be turned over to the surgeon with some hopes of relief.

The diet of a typhoid fever patient should be liquid during the fever lemonade and the juice of oranges, prunes, etc. If milk is distasteful to the patient or causes flatulency or passes the bowels in curds, it should be discontinued. Nourishment should be given at stated periods, as often as every three hours, and as much as the stomach can manage. When the evening temperature reaches normal, a soft diet may be commenced and continued for 2 weeks before allowing a solid diet. The patient should be kept in bed for one week after cessation of fever before allowing him to sit up. During convalescence a tonic of some kind may be required. He should not be allowed to overeat when his appetite returns." - Dr P. D. Harding, MD in "Treatment of Typhoid Fever", The Chicago Medical Recorder, 1904.

> *"Cold colonic flushes for reduction of temperature in typhoid are recommended by Penoyer. He uses a small colon tube inserted with care just well through the sphincter muscle, 500ml to 1.5 litre of water, temperature 5.C to 10.C, passed in small quantities into the colon and allowed to return through the tube. This may be repeated every 4 to 6 hours if the temperature reaches 40.C and is not reduced by the sponge. He has used the method more or less in a considerable number of cases with good results, but only in those severe cases*

in which one might expect haemorrhage and other serious complications and has seen no bad effects from its use." in "The Journal of the American Medical Association", Vol.59, 13 July 1912.

Typhoid Fever, ParaThyphoid Fever, Brill's Disease

"A mere outline of this disease will be given for the purpose of differential diagnosis. Typhoid may be defined as a general infection caused by the Bacillus typhosus, characterized anatomically by hyperplasia and ulceration of the intestinal lymph-follicles, swelling of the mesenteric glands and spleen, and by parenchymatous changes in the other organs, such as in the kidneys, liver, etc. Clinically the disease is marked by fever, rose-colored eruption, abdominal tenderness, tympanites, diarrhea, and splenic enlargement, but these symptoms are inconstant.

Distribution in the Body: The typhoid bacilli may be demonstrated in the circulating blood, and have been found in the urine, stools, sweat, sputum, and in the rose-spots. They occur in the mesenteric glands, spleen, and gall-bladder, and have been found in almost all the organs, even in the muscles, uterus, and lungs. Cultures from the intestines show that few, and frequently none, can be cultivated from the rectum up to the cecum. Above this they are numerous. They have been found in the mucous membrane of the stomach, in the doudenal contents, also in the esophagus, and on the tongue and tonsils, and have been isolated from endocardial vegetations, meningeal and pleural exudates, and from foci of suppuration in various parts of the body. They may be present in the stools of healthy people who have lived in close association with typhoid patients.

Morbid Anatomy: Intestines. — A catarrhal condition exists throughout the large and small intestine. Specific changes occur in the lymphoid elements; chiefly in the lower

end of the ileum.

Four stages are described: Hyperplasia, involving Peyer's patches in the jejunum and ileum and, to a variable extent, those in the large intestine. They are swollen, grayish-white in colour, and may project from 3 to 5 mm. The solitary glands may project to a variable extent. There is hyperemia of the follicles; later an increase and accumulation of the cells of the lymph-tissue, which may infiltrate the adjacent mucosa and muscularis; the blood-vessels are compressed, which give a white anemic appearance to the follicles. This process reaches its height from the 8 to the 10 day, and then undergoes either resolution or necrosis.

Healing: The mucosa extends from the edge and a new growth of epithelium is formed, as are the glandular elements. The healed ulcer is depressed. Healing is never associated with stricture.

Large Intestine: The cecum and colon are affected in about one-third of the cases, and the solitary glands are sometimes enlarged.

Rectal irrigations he found of great value. He gives rectal injections with 1.5 litre of warm normal saline solution, preferably several times a day (depending on the case), thus irrigating the bowel. During the first day of treatment, cold water only is given as food.

Temperature: Sponging. — With proper diet and irrigation of the bowels, tub-baths are rarely necessary. Cold sponging with alcohol and water, combined with friction when the temperature reaches 39°C. Or over, generally suffice. Strong (Amer. Med., Oct., 1910) has secured reduction of temperature and relief of nervous symptoms by continuous irrigation of the bowel with cold normal salt solution with the Kemp tube, in one case with ice-cold water for an hour or more, where baths failed. Cold irrigation should be avoided if there is marked nephritis or poor circulation.

Baths: I am not opposed to the Brand method, as a scientific procedure for its additional effects on the pulse and on elimination. If the friction bath is given, it should be started at about 32°C, never given below 21°C. Often the

warm bath is preferable. I have used the Brand method frequently." - Dr Robert Coleman Kemp", MD, in "Diseases of the Stomach, Intestines, and Pancreas", 1917.

Gastrointestinal Symptoms in Typhoid, Treatment of

"Anders states in the Journal of the American Medical Association of 26 January 1901, that the following methods are best for the conditions named. For the constipation sometimes present throughout the entire course of the disease, Dr. Anders has found that an enema of soap-suds, given every second day, is followed by the speediest and best results; in late protracted cases accompanied with an irregular intermittent fever, he has seen good results follow the administration of divided doses of saline laxatives.

The colon or lower bowel is sometimes the seat of extensive ulceration; this is productive of marked tympanites, and at times an exhausting diarrhea supervenes, or involuntary discharges may occur. In these instances intestinal irrigation, if judiciously employed, tends to sweep from the bowel decomposable material and irritating microorganisms." - in "The Therapeutic Gazette", 1901.

Salt Enemas in Typhoid Fever

"Enemata of physiologic salt solution have been employed in typhoid fever with good results by Riesmann (noticed in Wien. Med. Woch., 1910, col. 2071). He injects daily from 2 to 4 quarts, and has observed an increased diuresis, improvement of the nervous symptoms, and, evidently, increased elimination of the toxins. In the course of 2 years, since the author has employed this treatment, he has not lost a single patient although in some of his cases the disease ran a very severe course." - in "The American Journal of Clinical Medicine", Vol.18, 1911.

"In conclusion, I will state it as my honest conviction that in the treatment of typhoid fever an early and thorough irrigation of the colon, a proper dietary, and a copious internal and external use of water! are more to be relied upon than the employment of drugs." - Dr T. J. Shuell, MD, in "NY Medical Journal", 1893.

Treatment of Vertigo

"Empty the bowels and prevent them from filling up. Young (Med. Summary, Dec 1918) states; first, by administering full doses of Epsom salts to effect; then, use mineral oil enough to cause a daily action. Repeat the saline purge every 2 or 3 weeks, and give from 5 to 10 drops of spirits of turpentine twice a day, one week, and gum camphor the next week. One grain 3 times a day, and let up for a week or 10 days. These remedies stimulate the spinal cord, and brain, especially the cerebellum, oblongata and pons." - in "American Medicine", 1919.

Chapter 27

Rationale of Intestinal Irrigation

"The expulsion of gas, following a rectal irrigation, is not in itself as important as the reflex, activating effects which a successful colonic stimulation exerts upon the rest of the intestinal tract, causing a return to normal, uninterrupted, wavelike peristaltic contractions." - Dr Waters F. Burrows, MD, in "Postoperative Intestinal Stasis and the Intraabdominal use of Oil", Medical Record, 1 November 1913.

A Colon Irrigation or Enteroclysis

"The word enteroclysis is derived from two Greek words; enteron, meaning intestine, and klysis, a washing out of stagnant or waste material. In a colon irrigation a large amount of fluid is injected, sufficient to distend the entire colon. It is intended to reach the ileo-cecal valve.

Care and Treatments used Following an Operation

The discomforts which are apt to follow —headache, backache, thirst, nausea, and vomiting, distention, restlessness, sleeplessness and retention of urine—can very often be relieved by the simpler nursing measures and treatments, such as the application of cold compresses, poultices, stupes, and enemeta, etc., frequently other measures are necessary. Such treatments are colon irrigations, to relieve distention; a lavage, to relieve nausea, vomiting, or distention; a Murphy drip or proctoclysis, to

relieve thirst; rectal feedings, to rest the stomach and supply nourishment to the body; catheterization of the bladder, to relieve retention of urine, and a bladder irrigation, if necessary, to relieve cystitis.

Conditions and Purposes for which Colon Irrigations are Given

1. After operations for the following purposes:

a) To thoroughly cleanse the large intestines of excess mucus, faeces, toxic and putrefying matter. Colon irrigations are particularly valuable after operations on the alimentary tract or on the gall ducts, which interfere with the normal flow of the antiseptic bile into the intestines, resulting in the accumulation of toxins. They also relieve or prevent persistent vomiting which is often due to the accumulation of toxins in the body. Vomiting is very serious in all operations on the alimentary tract, gall bladder or ducts.

b) To stimulate peristalsis and relieve flatulence.

c) To supply heat as a stimulant in shock or collapse.

d) To supply fluid to the body in order to increase the volume of blood, raise the blood-pressure and stimulate the heart; to relieve thirst; to supply fluid lost by vomiting, diarrhea, or hemorrhage; to dilute toxins in the body; to stimulate and flush the kidneys and relieve suppression.

2. In constipation.

3. In obstruction; the pressure must be low; the solution must be given slowly, the flow being constant, not jerky.

4. In dysentery, to cleanse from mucus and pus, and to dilute the toxins.

5. In inflammatory diseases of the lining of the large intestines, to supply local remedies such as tannic acid, boric acid, etc.

6. In inflammation of the kidneys and pelvic viscera.—A hot colon irrigation brings heat very close to the above organs. The heat directly stimulates the kidneys and relieves pain, congestion and suppression, and also relieves

inflammation and pain in the pelvic viscera. The heat also stimulates the portal circulation, the liver and flow of bile.

7. In colic—hepatic, biliary, renal, or intestinal—to relax the muscles and relieve pain.

8. In toxemia and uremic poisoning, to dilute and help eliminate the poisons.

9. In poisoning from bichlorid of mercury, etc., in order to dilute and remove the poison from the intestines and body, to stimulate and flush the kidneys, and to prevent its destructive effect upon them and the resulting danger of acute nephritis and suppression, which might prove fatal.

A Proctoclysis Rectal Infusion or Seepage

The word proctoclysis comes from two Greek words; procto comes from proktos which means anus or rectum; clysis from the Greek klysis, a washing out of stagnant or waste materials in any cavity. The treatment is commonly called the "Murphy drip" after the noted surgeon who first used and described it. The purposes of the treatment are much the same as in the enteroclysis, when that treatment is given in such a way that some of the solution will be absorbed. The proctoclysis, or Murphy drip method, is a form of enteroclysis in which the solution is introduced into the rectum drop by drop for the purpose of supplying the body with fluid and at the same time freeing the intestines of gases and toxic products, etc. The treatment may be continuous and all the fluid is intended to be absorbed, sometimes a pint an hour may be absorbed. It is given to supply fluid in postoperative cases, in suppression, in toxemia, and in septic cases, for the purposes mentioned in an enteroclysis.

In septic peritonitis it relieves thirst and dilutes the toxins absorbed from the infected peritoneum. Dr. Murphy also believed that it reversed the flow of lymph in the lymphatics of the peritoneum, that is, that, instead of the toxins being absorbed by the lymph vessels to be carried to the blood stream causing a general toxemia, the lymphatics poured out their lymph into the peritoneal cavity, thus diluting the

toxins, and irrigating and flushing out this cavity. In hypertension and high blood pressure, a solution containing potassium acetate is given to relax the blood vessels and to increase the elimination of fluid, thus lowering the tension and blood pressure." - Bertha Harmer, RN, Instructor of Theory and Associate Instructor of Practical Nursing, St. Luke's Hospital Training School for Nurses, New York in "Text-Book of the Principles and Practice of Nursing", 1922.

The Principle of Colon Lavage

"The principle of Colon Lavage is simply the introduction into the bowel of plain warm water, or water medicated with some antiseptic, to enable the stagnation faecal contents to be removed, and also to clean up the mucus membrane. The congestion is relieved, the intestinal glands made to function normally, and the muscular tissue is toned up." - Dr George Somerville, MD, Deputy Super Intendant at the West Ham Mental Hospital, in "The Hygiene of Life and Safer Motherhood", 1934.

Therapeutic Effect

"Re-energise the bowel and to remove faecal accumulations, as well as to cleanse and disinfect it in cases of constipation, colitis, intestinal toxaemia and fermentation, and irregular action of the bowel and other similar conditions, it is also given in cases where there is not only bowel trouble or skin disease, but also arthritis". - "Hydrotherapy and Physiotherapy: For Bath Attendants, Nurses and Biophysical Assistants" by Lionel C. E. Calthrop M.B. Durh., M.R.C.S. Eng., L.R.G.P. Lond. Consulting Physician, Harrogate Royal Bath, Hospital; Ex-President, Balneological Section, Royal Society of Medicine; late Medical Superintendent, Woodhall Spa Baths, London 1931.

The Mode of Action of Irrigation Upon the Intestine

"It may be said that it is:

1. Mechanical: The intestine is distended by the mass of water injected, and the muscles thereof are thus excited to contraction.

2. Thermal: It has been demonstrated, both experimentally and clinically, that cold water will arouse the peristaltic movements of the intestines, and this so markedly that not infrequently they can, in rather thin persons, be discerned through the abdominal parietes. Warm water allays peristalsis, and it is for this reason that constipation is so generally observed in persons addicted to warm injections.(Winternitz, loc. Cit.)

Hot water, like cold, excites peristalsis, as I have already set forth elsewhere. (American Journal of the Medical Sciences, January, 1886) Both these moments act upon the ultimate nerve filaments distributed in the mucous coat, and through them the various muscles are aroused to action. Moreover, by reason of the stimulation of the ultimate nerve filaments, of the direct mechanical influence of the impact of the water upon the tissues, and of the contraction of the muscles, the blood-vessels are contracted, the blood is driven forward more rapidly, the contracted vessels dilate, are again contracted, and thus finally the whole intestinal and gastric circulation is accelerated.

A greater amount of oxygen is carried to the parts, the energy of the nerve action is heightened thereby, and, as a result, the physiological functions are much better performed. It acts upon the intestines in still another way. It has been shown by the investigations of Rohrig ("Experimentelle Untersuchung ub. die Physiologie der Gallenabsonderung", Wiener mediz. Jahrbucher, 1873) that injections of water into the rectum increase the rapidity of the portal circulation and heighten the pressure in the

hepatic cells. There is an increase in the quantity of bile secreted, and increase of bile means exaggeration of peristalsis." - Dr Henry Illoway, MD in "Constipation in Adults and Children", 1897.

Rationale of Intestinal Irrigation

"This procedure for mechanical cleansing of the large intestine has been long known as Enteroclysis, High Enema, etc. The author has no experience with hot irrigations by the double irrigator which is credited with favourable action in nephritis. The action of the water flowing through the intestinal canal is chiefly mechanical, i.e., it removes materials of decomposition and pathogenic elements, which are known to cause and maintain many cases of diarrhoea and dysentery. If the fluid enters only (as is in most instances the case) the large intestine, peristalsis in the smaller intestine is evoked and the flow of bile is increased. The blood-pressure is somewhat raised, the kidneys are stimulated, the hepatic function is increased, and leukocytosis is induced. There seems to be, indeed, a general acceleration of the metabolism, a general cell activity, when water above 43 C is used.

The good effect of intestinal irrigation in Icterus (Jaundice), Cholelithiasis (presence of one or more calculi (gallstones) in the gallbladder), and Intestinal Disturbances are due to the removal of decomposing and irritating matters, accumulated mucus, hence to a cleansing and disinfecting action, and not to a cholagogue action (medicinal agent which promotes the discharge of bile from the system, purging it downward).

Diuretic Effect

Flushing of the colon with warm water, followed by an injection of from 250ml to 1 litre of hot water (37C), that is retained, is a quick, safe, and powerful means to stimulate the kidneys into action. To retain the hot water the patient

should remain recumbent for a half-hour after receiving the injection. From 300ml to 600ml of water at 37C. can be retained at one time in the colon.

Flushing of the colon with a large quantity of hot water (500ml at least at one injection) powerfully stimulates the action of the kidneys. Part of this effect is due to the internal application of heat and part to some of the water being absorbed. The heart may be stimulated by the temperature of the irrigation as it is in water-drinking; the urinary secretion is increased by reason of the enhanced blood-pressure, which ensues at once in the kidneys, but also by direct absorption of fluid, which occurs later.

Therapeutic Indications

Infantile Diarrhoea

The summer diarrhoea of infants offers an excellent field for intestinal irrigation. If the technique be mastered and properly executed once or twice a day, no other remedy equals intestinal irrigation in removing pathologic products, soothing the suffering child, and promoting a rapid convalescence.

Catarrhal Jaundice

The author has found an excellent adjunct in the treatment of catarrhal jaundice in irrigation of the large intestine with cold water. From 2 to 6 irrigations are sufficient to produce the desired result. In my own experience the gastric and hepatic pains ceased after the first injection, appetite soon returned, and jaundice disappeared more or less rapidly, but that most distressing symptom - pruritus (itch is defined as an unpleasant sensation of the skin that provokes the urge to scratch, a characteristic feature of many skin diseases) - was not relieved.

Asiatic Cholera

In this disease, which has baffled the most skilfully devised medication, intestinal irrigation has proved of great service.

Uremia and Renal Insufficiency

In acute conditions, with rapid and feeble pulse, irrigation at 43C to 48C. has been given for 40 minutes and repeated every 4 hours with good results. In one case the urine, previously scanty, was increased to 30ml and a pleuritic effusion was absorbed. In suppression with uremia, accompanied by high tension and pyrexia, rapid increase of renal secretion, bowel action and sweating, with decrease of tension are reported by doctors Grandin, W. H. Thomson, R. Coleman Kemp and Voorhees with the double irrigator of Kemp.

Dysentery

In cases resisting ordinary treatment irrigation with 250ml or 500ml of boiled water about 35C to 38C, containing teaspoonful of salt to each litre, has proved a valuable auxiliary by removing pathologic products, subduing Hyperaemia (is the increase of blood flow to different tissues in the body), relieving the tenesmus (continual or recurrent inclination to evacuate the bowels, caused by disorder of the rectum or other illness) more efficiently than anodyne enemata, and thus enabling the inflamed bowel to obtain that rest which in all inflammatory affections is the chief element of restoration.

All these effects are due to the mechanical cleansing action of water. They demand careful attention to the details of the procedure, to inculcate which experience has taught me to be necessary. In amoebic dysentery the destruction of the amebe and the prevention of their development from spores, which are buried in the tissue, cannot be accomplished by superficial washing or flashing of the intestinal canal, although this is important for cleansing.

Out of 73 cases (reported by Tuttle) 70 were cured, 1 died 1 had liver abscess before recovering and 1 went to Europe improved. The author is in the habit of ordering bi-weekly intestinal irrigation in most chronic cases coming under his treatment, on the theory that in many of this ailments constipation has produced abrasions by Scybala (hardened

masses of faeces) and thus opened an avenue for auto-intoxication.

Procedures Adapted to Various Diseases

That the progress of many acute, subacute, and chronic maladies is favourably influenced by the correct and systematic application of water, has long been familiar to many physicians in ancient and more frequently in modem times. The author's observations of half a century at the bedside, especially in consultation and by comparing results before and after his adoption of hydrotherapy, have convinced him that in certain conditions the application decides the issue of the case not alone between health and continued invalidism, which too often sends the sick to the empiric, but in many infectious diseases between life and death." - Dr Simon Baruch MD, in "An Epitome of Hydrotherapy for Physicians, Architects and Nurses", 1921.

Mechanical Procedures

The Enema, Intestinal Irrigation, Proctoclysis

"For injection into or irrigation of the intestines there are 4 methods, all of which have their special applications.

They are:

1. The Enema.
2. Irrigation with a single tube.
3. Irrigation with a double-current tube or with two tubes.
4. Proctoclysis, the drop method of injection.

Uses of Irrigations or Enemata are as follows:

1. Local Treatment of Diseased Conditions: as of catarrhal colitis.
2. Relief of Congestion or Acute Inflammation: as of the rectum or prostate.
3. Relief of Pain and Irritability: as in spasm of the

sphincter, or of an adjacent organ as the bladder.

4. Absorption of Inflammatory Products: as of postuterine adhesions.

5. Replace the Loss of Fluid in the Body: as in cholera.

6. Dilute the Poison of Disease: as in uremia.

7. Increase the Flow of Blood to a Part: as in insufficient menstruation.

8. Check Hemorrhage (extreme cold or heat): locally, as in bleeding ulcers of the rectum, in an adjacent organ, as in uterine hemorrhage.

9. Reflex Effects through the Sympathetic Ganglia: on the circulatory apparatus, on the secretions, as a tonic stimulant, and the revulsive effects.

10. On the Circulatory Apparatus: as in shock.

11. On the Secretions: as in the production of sweating, bowel action, and urinary secretion in uremia.

12. As a Tonic Stimulant: as by use of the alternate hot and cold douche in diminution of erectile power, or effect on the musculature, as in atonic constipation or impaction.

13. The Revulsive Effect: as the production of bowel action in apoplexy.

14. The Reflex Effect on a Distant Organ: as from enemata in jaundice.

15. The Effect on the Heat Centers: the temperature can be raised in shock by hot irrigation, or lowered in fever by cold irrigation or by enemata.

16. Simple Cleanliness: removing undigested food products, and preventing auto-intoxication.

17. Antispasmodic: as by relieving spasm in colic.

18. Mechanical: as in intussusception.

Water as a vehicle: the nutritive enema, or for medicaments.

Physiologic Experiments: In a series of experiments at Columbia University some years ago the author demonstrated on animals, and later clinically, that enteroclysis at 43° to 48°C, best stimulated the heart in shock; that renal secretion undergoes a double cycle of

increase from enteroclysis at high temperatures (43° to 48°C), both from intestinal absorption and from the increased blood flow through the kidney; while with lower temperatures the increase is merely from intestinal absorption. Normal saline solution has a specific effect in increasing renal secretion. Cold irrigations first stimulate, then depress. Body and blood temperature are increased by hot irrigations and diminished by cold. These experiments were completely reported.

Enemata and Enteroclysis are of value in:

1. Dysentery
2. Intestinal Hemorrhage (this refers to hemorrhage in the large intestine, where an extremely hot or cold astringent enema is of service)
3. Intestinal Catarrh
4. Typhoid
5. Intestinal Colic
6. Tympanites
7. Intestinal Toxemias
8. Apoplexy
9. Intestinal Dyspepsia
10. Diarrhea
11. Thirst
12. Constipation
13. Impaction
14. Intestinal Paresis
15. Jaundice

They are extremely useful in:

1. Shock,
2. Oliguria,
3. Uremia,
4. Sepsis,
5. Renal Colic,
6. And in Inflammatory Conditions of the Genito-Urinary Organs of both sexes.

The High Anema is at times of value to reduce Intussusception.

Hydrotherapy: The Priessnitz compress, poultices, and the application of heat or cold locally are useful for pain.

Gersuny's Adhesion Symptom: If the abdominal wall over the tumour is gradually depressed with the finger-tips, the pressure gradually diminished and the fingers slowly withdrawn, one can feel the mucous coat of the intestines loosening itself from the faeces forming the tumour (i.e., the wall of the bowel separates from the tumour when palpating pressure is relaxed).

If under intestinal irrigations, etc., the tumor diminishes in size, it is evidently faecal." - Dr Robert Coleman Kemp, MD, Professor of Gastro-intestinal Diseases at the Fordham University Medical School in "Diseases of the Stomach, Intestines and Pancreas", 1917.

Enteroclysis, Hypodermoclysis, and Infusion

"A Manual for Physicians and Students by Robert Coleman Kemp, MD New York, 1900. Most of our readers know that Dr. Kemp has for a number of years devoted himself to making physiological experiments which have a direct bearing upon practical medicine. The results of these investigations have been published, most of them in medical journals, and he has now collected and placed them before us in the form of this small octavo of a little over 300 pages.

The first portions of the work deal with certain experimental matters, and then with the employment of enteroclysis in the treatment of various infectious diseases. Other chapters deal with enemata and the various methods of washing out the bowel; then succeed others upon the various methods of infusion and the use of the carbonic acid bath in the treatment of cardiovascular diseases. The book is a useful summary of the work done along the lines that we have named, and is not a text-book, but rather an essay

embodying Dr. Kemp's views, most, if not all, of which are worthy of our high regard and esteem." - in "The Therapeutic Gazette", 1901.

Therapeutic Notes on Enteroclysis

"In Robert Coleman Kemp's valuable manual upon Enteroclysis, Hypodermoclysis and Infusion, there is a brief introductory chapter by William H. Thomson, MD, LLD, from which the following is a quotation:

> *"Lavage of the invisible cavities of the body in inflammatory states of their lining mucous membrane lias justly taken rank among the most effective of modern remedial measures. In the case of the rectum and lower bowel, however, the great number of advantageous results follow from this procedure, not only by improvement in local conditions, but still more by effects obtainable through certain physiological relations upon the general circulation, as well as others secured through important nervous associations with contiguous organs."*

We merely quote the above in order to give the opinion of such an eminent authority as Dr. Thompson upon the value of enteroclysis.

Bearing upon this subject the following clinical report will be of interest:

S. Newmayer, MD, Philadelphia, Pa., states:

"Among the varied causes of convulsions none play a more frequent and important part than auto-intoxication. They are more frequent in children, due generally to a possible overfeeding, improper food or constipation. The

intestinal canal contains a variety of toxins derived from the ingesta, bile and putrid material.

There is continuous absorption from the intestines, including the taking up of toxins. In the acute infections, where convulsions are oft-times a forerunner, auto-intoxication from the intestinal tract undoubtedly is of no minor importance. Infections are the result of microbes and we know these bacteria produce something injurious to the system, they elaborate poisonous ptomaines or toxic substances.

Nature tries to rid the body of this poison through its various channels of elimination, one of which is the intestinal canal. It is here we can aid nature with our antiseptics. The value of internal intestinal antiseptics I believe is greatly over-rated. Many of these drugs are soluble and absorbable and those that are not are so often given in such small doses that in the long journey from the mouth through the intestinal tract they have spent most of their value before they have proceeded far.

Not to employ internal antiseptics would be unwise. But I would urge a more liberal use of antiseptic solutions by means of the rectal tube. This enteroclysis has not only its antiseptic value, diminishing the toxicity of the intestinal tract, but oft-times an antipyretic action. This mode of treatment has not been very popular with the physician because of the unclean work, but I am confident the results well repay one for the labour.

In all cases of convulsions, immaterial of the cause, and in any other condition pointing to auto-intoxication, I flush the lower bowel with a solution of Glyco-Thymoline, one to two ounces to the quart of water." Glyco-Thymoline is always kept in my emergency grip." - in "Canadian Journal of Medicine and Surgery", Vol. 24, 1908.

The Fallacies of the Method of giving Colonic Irrigation in Children

"This paper gives a big point in what may appear to be a small subject; but it is a subject of everyday interest, and hence is important. It is published simultaneously in the Pennsylvania State Journal". - Editor

Colonic Irrigation, Enteroclysis, or High Enema, has been recognized for years as being one of the most valuable methods in the treatment of disease, in adults as well as in children, and various methods of administration have been, and still are, employed. Among other indications for the use of this therapeutic measure might be mentioned the reduction of temperature, the relief of constipation, the elimination of gas, the quieting of the nervous system, the increase of renal activity and the administration of nourishment.

Technique

The tube is held in this position for a few minutes to allow of the escape of gas, as it has been found that the pain frequently complained of during colonic irrigation is entirely avoided if the gas is first gotten rid of. It is equally important to rid the tube attached to the container of all air by letting a few drops of fluid pass through.

Incorrect Teaching

We do not claim any originality in this matter, as we know a paper was published some years ago on this subject, illustrated as ours is, but we bring the matter to your attention to remind you of the great value of colonic irrigations as a therapeutic measure." - Dr. H. Brooker Mills, MD, Professor of Pediatrics, Medical Department, Temple University; Pediatrist to the Samaritan, Garrettson and American Stomach Hospitals, etc. and Dr. Gustavus C. Bird,

MD Lecturer on Roentgenology, Temple University; Roentgenologist to the Samaritan and Garrettson Hospitals in "Medical Council", Vol.24, 1919.

Cleanliness is said to be next to Godliness

"A very old adage which I have found to be no less true in the treatment of all diseases which have come under my observation. It is my custom to first make clean my patient, outside and inside so far as practicable, by the free use of pure water and good soap. I have never seen nor had a bad result from the use of these agents. I am of the opinion that in many cases all the medicine that is needed is the free judicious use of water, abstinence from food, plenty of pure air and sunshine. These agents, together with a clear conception and observation of the laws of hygiene will figure very conspicuously in the future of medicine.

In the treatment of disease there are 3 distinct steps.

They are:

1. A correct diagnosis, ascertaining the cause;
2, absolute cleanliness by irrigation internally and the free use of water externally, and by the use of disinfecting agents;
3. Repair the damage, heal the wound, restore nature, rather assist nature in her work of reconstruction.

In treating disease of the alimentary canal generally, and in the three following cases I have endeavoured to follow the foregoing principles.

Case 1. Miss Mary, aged 29; American; medium size and rather stout; was taken at night with pain in lower bowels, followed by watery stools. I was called in the early morning, 15 March. Found her excited and suffering very much pain in the bowels; also complained of severe headache. Temperature was slightly elevated. Pulse regular, but rapid

and weak. She gave history of having had several severe attacks of ulcerative colitis, during one of which she came very near to death's door. There was some tenderness on palpation and percussion over the major part of the abdomen and the bowel was very active in evacuating itself. The stools were thin, and contained mucus with a little blood.

When food was taken into the stomach, especially milk, it was usually ejected in curdy masses within a few minutes. The usual agents were used to abate the pain, to check the vomiting; also to restore the bowel to its normal condition. The pain was greatly reduced and the rebellious condition of the stomach almost entirely overcome; but the bowel persisted in its active work of draining the system. The stools became offensive, containing more blood and mucus.

A portion of the lining membrane of the intestine about 8 inches in length was passed with the faeces the 4th day. The bowel was washed out morning and evening with warm soap water. At the end of the first day after beginning the last method of treatment there were marked signs for the better; and the patient expressed herself as feeling less bad. The treatment was continued with constant improvement. Pain was all gone; and after a few days of convalescence the patient made a perfect recovery without any further treatment.

Case 2. Ely, aged 32, medium-size man, general health uniformly good. On arrival at bedside of patient, found him in what seemed to be a semi-comatose state. The odour of whisky was very marked. Examination of the matter ejected showed it to contain blood and mucus. A cold pack placed over the epigastrium to check the vomiting. His wife gave history of his vomiting at irregular periods until 10 pm, after which time nothing could pass either up or down. Impossible to swallow water. Upon careful inspection, the whole mucous membrane lining the mouth and throat as far as could be seen was in a state of hypertrophy. Indeed, it was simply cooked. (Pardon the use of the word, cooked; but it expresses the condition). The stomach, also, was in a

state of inflammation. What was to be done? Internal medication and alimentation was out of the question. Recognizing the emergency of the case, I determined, if possible, to dissolve the mucus about the affected parts, and to attempt to reduce the edema of the membranes. An enema of warm soap-water was given, and repeated, which produced a soft stool; and he expressed himself as feeling better.

The spraying of nose and throat, together with the gargle, also the enema, were continued every day. The inability of the patient to swallow made alimentation by the stomach impossible, to say nothing of the inability of the stomach to perform the work of digestion. Boiled milk and warm soups were regularly given in small quantities by the rectum. On the morning of 7 April, the whole lining membrane of the esophagus was expelled in the attempt to vomit. The membrane was neither broken, nor perforated; but was turned inside out. There was some fever most of the time. The temperature running up as high as 102. The pulse varied from normal to 90, and a few times went up to 100. The general condition of the patient was fairly good, indeed, much better than could have been expected. There was very little headache, but a lancinating pain in the left hypogastric region, was greatly accelerated by coughing, and there was more or less tendency to cough during the first week.

The history given of the case showed the last named trouble to have been produced some 5 years ago by prolonged arduous labour in which the abdominal muscles were in a constant strain for hours. Since which time the trouble has returned at different periods; and almost invariably following protracted, or great straining of the muscles in that region.

The odour coming from the mouth of the patient was offensive from the first, and continued to grow more and more offensive until after the expulsion of the membrane. The kidneys performed their work admirably well. The stools which followed the enemata of warm water were rather soft and of a greenish colour. There were no hallucinations, no delirium; and for the most part sleep was

good. Gradually, but slowly, the condition of the patient grew better.

Case 3. Bennie, little boy, aged 9 years, was brought to my office 20 May. Had diarrhoea which had become chronic. Also had intermittent fever, mild form. He was very much reduced in flesh and emaciated. Various and numerous agents from the list of ordinary remedies were used during the four succeeding days; but the diarrhoea was growing worse rather than better. The stools became very numerous, the actions amounting to 10 or 12 at night with as many more during the day. The malarial fever received appropriate treatment and was readily subdued. May 26 I planned a new treatment. The patient was thoroughly sponged from head to foot once a day with tepid alkalin water. The bowel was washed out clean morning and evening with soap-water, just warm enough to be comfortable to the patient. The internal treatment consisted of a milk diet, fresh water to drink. Improvement began. The skin and bowel were kept thoroughly cleansed every day, the bowel being irrigated twice each day. 4 June the child was reported well. His general health is rapidly improving.

What effected the cure? My answer is this:

1. Removing the cause. This was done by abstinence from all solid food. Aliment was restricted to small quantities of pure fresh milk, beef, and chicken soups, given at regular periods.
2. By cleansing the affected parts.
3. By healing the wound.

May we not reasonably expect that during the remainder of the present decade, and for all time to come, internal as well as external cleanliness shall be to suffering humanity a boon, an heavenly unction (anointing)." - Dr James Osbourn DeCourcy, MD in "Diseases of the Alimentary canal, Treatment, Internal and External Hydrotherapy", JAMA, 28 July 1894.

Chapter 28

Diseases of the Rectum

The Problem of the Diseased Colon

"The earliest medical writers dealt with costiveness and attributed many types of illness to colon disturbances. The colon has been the most abused organ in the body. Cancer of the large bowel is found more frequently in the rectum and lower sigmoid where it is within easy reach of the examining finger. Statistics show that about 80% of the cancers of the large bowel are recto-sigmoidal. We have long taught that inflammatory conditions of the bowel, except in rare instances of infection through the rectum such as gonorrhea, are due to secondary foci else where in the body, namely infection of the teeth, gums, tonsils, nares, sinuses, gall bladder or as an aftermath to some constitutional disease.

The freedom of symptoms and the regularity of the evacuation of the bowel is in no measure an index or criterion to the state of health of the colon. A bowel may function normally and exhibit no subjective symptoms whatsoever and yet be a veritable cess pool of infection that is constantly absorbed by the individual. The treatment is mainly constitutional with the use of medicated retention enemas in the bowel.

The treatment of all forms of colitis while specific in certain cases involves the general principles of the careful physical examination with the removal of all septic or toxic foci above, careful dietary regulation, and well appointed local medication in the form of colonic irrigations. The diet plays a most important part.

Reflex States

The colon is especially susceptible to reflex phenomena both from the standpoint of production and reception of stimuli. The innervation of the caecum, colon and rectum is most extensive and sends its fibers to ganglia scattered throughout the spinal cord, which in turn communicate with nearly all of the abdominal viscera.

The intimate correlation of this innervation frequently tends to make it difficult to distinguish the cause and affect disorders, especially in border line cases.

Disease in the gall bladder, appendix and kidney acting through the vagus often produce spastic or irritable states in the colon and upper digestive tract, and, reversely pathology in the bowel acting through these same tracts produce referred symptoms to these viscera. The segmental relationship of the gastrointestinal tract must always be kept in mind as disease anywhere along its course may be reflected through its entire length. No pathology in the digestive tract, however innocent it may appear, should be overlooked from the standpoint of its ability to produce reflex states.

Likewise gall bladder, uterine, kidney and vesical disease are very prone to express their symptoms in terms of reflex colon disturbances. It is impossible to establish any method by which the exact offending member can always be identified, however, if we study the patient from the standpoint of an interdependent and intercorrelated body instead of a combination of separate organs we will do much to solve these perplexing problems.

Endocrine

In thyroid disease we have a rather accurate method of recording the function of the gland and a basal metabolic rate is certainly indicated in vague colon disturbances. I have seen 2 cases of chronic loose bowel in women with hyperthyroidism that disappeared after removal of the gland. I have also obtained some benefit in constipation in

hypothyroids by advising the use of thyroid extract.

Allergy

The bacterial flora of the intestinal tract is quite easily influenced by various classes of foods and it is possible that a change in media may allow bacteria that are harmless under certain conditions to become active and produce allergic reactions. I am sure that when the diseases of the colon are properly and thoroughly investigated, by the profession as a whole, from the standpoint of etiology and pathology and treated in a sane and scientific manner, the human race will experience a benefaction that has been rarely surpassed by the previous great discoveries in medicine." - Dr. Wm. E. Applehaus, MD, Louisville, in "The Kentucky Medical Journal", April 1931"

Conditions of the Rectum

"The relations between constipation and diseases of the rectum are not only intimate, but especially notable in that either may be cause, effect, or both, with reference to the other. I know of no other conditions in which this relationship is so clearly marked and so frequently exemplified. With respect to rectal diseases, it is a rule to which there are but few exceptions that every lesion in the entire category may be caused directly or indirectly by constipation. With respect to constipation, though perhaps not so generally recognized, it is capable of demonstration that rectal disease often stands to it in the light of causative factor. And either effect once established reacts powerfully and positively in intensifying the very condition which gave rise to it.

Considering constipation first in the active or causal role, the propositions stated are easy of verification. That venous congestion is the great underlying factor in the production of rectal diseases, both individually and as a class, those who have given serious thought to the question will require no proof. The anatomical position and structure of the

rectum, together with its peculiar function, render this to greater or less extent its normal condition. Constipation augments it. A collection of faeces in the colon or sigmoid acts as an impediment to the return blood current; and the dislodgment and extrusion of such accumulation, requiring, as it does, the cooperation of the powerful abdominal muscles, must result in converting passive into very active congestion at the same time furnishing the means for the infliction of various forms of traumatism. If the faecal mass, itself normally of firm consistence and more or less nodulated, contains a projecting foreign body, injury must follow its passage.

Fissure, haemorrhoids, proctitis, ulceration, abscess, and fistula are the more conspicuous lesions which may be traced directly to congestion, traumatism, or the two acting in conjunction. The present unsettled state of our knowledge as to the aetiology of malignant growths permits no definite, assertion. But discriminating observation with reference, to their favourite sites justifies the assumption that mechanical irritation is a factor both constant and noteworthy.

Cancer of the Rectum

If friction may be admitted as a causative factor, the function of this organ, particularly when it has to do with costive stools, would render it an ideal situation for the development of this disease, and the wonder is that the proportion is not greater. To place malignant growths, therefore, in the list of rectal diseases for which constipation is at least in a sense responsible, seems to be entirely in keeping with the most advanced teaching on the subject.

The analogous nature of the gross lesions resulting from syphilitic and tubercular deposits in this locality would warrant a similar deduction in regard to them. Turning now to the consideration of constipation resulting from rectal diseases, we have, as the first indication of treatment, removal of the cause." - Dr A. B. Cooke, AM, MD, Professor of Anatomy and Clinical Lecturer on Rectal Diseases, Medical Department, University of Nashville, Tennessee, in

"New York Medical Journal", Vol.66, 1897.

Treatment of Digestive Disorders

"Rectal injections or clysters are employed for 4 distinct purposes:

1. To empty the lower bowel.
2. For treatment of colon catarrh.
3. For introduction of medicinal agents.
4. Maintenance of nutrition.

The evacuation of the lower bowel may be accomplished by water alone, which is best introduced at a temperature of 37°C., or lower, by means of the fountain syringe through a soft rectal tube, with the patient on the left side. The water must not be used too hot, for powerful reflex contractions are set up and it cannot be retained. The amount should not exceed 500ml, and should be retained ten minutes before it is ejected. Ice water injections are very beneficial for hemorrhoids and gastrointestinal hemorrhages, causing reflexly an arterial spasm.

The water injection is an old household procedure. This fulfils the double purpose of softening the faeces and producing vigorous contractions. When, as often happens, the water refuses to flow through the rectal tube, the latter should be withdrawn somewhat, which, by straightening it, causes the lumen to be restored and the water enters quickly. The pure oil injections, introduced by Fleiner, have been used very generally in constipation caused by colon catarrh and in colpoptosis, because, unlike all drastic laxatives, they do not aggravate the catarrh.

Warmed to the temperature of the body

Warm water, is poured into the irrigator, the rectal tube inserted to the length of about 6 cm, and the oil allowed to flow slowly into the rectum. It is best taken at bedtime in a

recumbent position, and sometimes it is necessary to make a preliminary emptying of the rectum with a small water injection, as it should be, all night; in the morning, either spontaneously, or sometimes with the aid of a small water injection, a copious stool occurs. When effective, the benefit of the clyster is soon recognized by patients, who state that their gas pains and distention are benefited, and the stool, instead of being as hard as a stone (as they express it), has become soft. The treatment should be given nightly at first for a week, after which twice a week suffices.

The indications for the treatment are constipation, mucous colitis, peritoneal adhesions, and the attacks of pain accompanying them. Inoperable cancer of the rectum also can be very favourably influenced by this management, and stools induced for a long time when the use of laxatives cause much pain. In cholelithiasis, too, it" has seemed to me that benefit has been derived in lessening the severity and frequency of the attacks of pain where operation was inadvisable or refused by the patient. The amount of fluid employed is best limited to 500ml, should be introduced very slowly, and retained as long as possible for evacuation of the lower colon. With persons possessing very lively reflexes it is often well to begin with smaller quantities, a cupful, and then persuade them to increase the quantity, or the rapid defecation will utterly fail to accomplish the purpose for which the injection was intended.

Treatment of Intestinal Diseases

The treatment of intestinal diseases by means of colon irrigation incidentally carries with it a diagnostic feature, because it is only when mucus, blood, and pus are present in the returning water that such treatment is worthy of continuance. Where the washings are conducted, it is best to use a funnel, which can be raised or lowered, and the water in portions of not over 350 ml should be allowed to flow in and out until freighted with a goodly supply of the pathological product; then the washing should be continued until the fluid remains clear. Under normal conditions the

first water flows out clear or with small faecal fragments.

The patient, on his left side, has the well-lubricated rectal tube introduced, with the outlet connected to a short piece of rubber tube, which directs the outflow of water into a basin or pail, while the practitioner pours a half litre of water into the funnel; or, if the patient takes the treatment himself, the bag or reservoir may be filled and the flow regulated by pinching the tube, and the patient may be seated over the receptacle. In this way 3 or 4 litres of water may be passed through the rectum, washing out mucus, faecal particles, etc., without any harm from the rectal tube if carefully handled. If it is desirable to have the water pass higher and wash out the sigmoid, and after a considerable amount has flowed in we simply open the cock and let the water gush out.

This, too, is preferable when medicaments are added to the water; the latter may be employed for antiseptic purposes or to dissolve mucus. The best antiseptic material is Thymol, in proportion of a teaspoonful to a quart of water, while for the solution of mucus, one can add Carlsbad salts, lime water, sodium bicarbonate, or acetate, a tea spoonful to a litre. Colon Irrigation has the power of stimulating intestinal peristalsis.

Continuous Irrigation

Continuous irrigation of the colon has been adopted by surgeons after operations where much blood has been lost or shock intervenes, as well as by physicians where there is great loss of fluid by vomiting or blood by rupture or erosion of arteries. A physiologic sodium chloride solution (7:1,000) is employed, which is allowed to drop from the reservoir, regulated by a clamp, which contains a screw to control the pressure. Ordinarily a bulb, with a fine tube entering from the top, is interposed, so that one can see at a glance whether fluid is entering and how rapidly.

Gastric Atony with Constipation

The constipation which almost invariably accompanies gastric atony, and may be due to an associated atony of the intestine, must not be treated by strong laxatives, which invariably increase the failing motility of the stomach. At best, only the milder articles, like agar-agar and petroleum, may be used, while our chief dependence is placed on diet and enemata.

Sigmoiditis and Perisigmoiditis

The treatment must necessarily vary with the form and severity of the disease. If a simple sigmoiditis, one can treat it the same as a catarrhal appendicitis, by rest in bed, liquid diet, an ice bag or, when this is objectionable to the patient, an electric pad applied to the painful region. It is much better to empty the bowels with enemata. Internal treatment has been proposed for the chronic cases, and consists either of the clysters containing dermatol, ichthyol, or iodoform, as are used in ulcerative colitis.

The only effective surgical treatment is, naturally, the complete resection of the diseased portion, but this is often so difficult and so jeopardizes the patient's life that a preliminary colostomy above the sigmoid is performed, and, by irrigations with the various medicaments mentioned, an attempt is made to restore it to its normal condition. If this cannot be done, or any suspicion of malignancy arises, a second operation may succeed in its removal and the patient's life be saved.

Intestinal Stenosis

When the case is prolonged beyond 2 to 3 days and the symptoms have somewhat subsided, we may proceed to rectal alimentation. Subcutaneous or rectal injections of physiological salt solution may also be employed to combat the intense thirst from which the victims suffer. The continuous administration method or proctoclysis is

indicated, but the patients often complain so bitterly of the restraint that this application demands that it is often better to put into the rectum 250 ml at a time, which is usually immediately absorbed.

Whether such irrigations can penetrate an organic stricture to such an extent as to soften faeces packed above it is uncertain, although in an old man in whom a malignant stenosis seemed assured, with obstruction of 24 hours duration, but no strangulation, 6 enemata of 1 litre each were given at 4 hour intervals in the knee-chest position before the first fragments of faecal matter appeared. Whenever such copious enemata are given, it is very necessary to note whether all or a large part of the fluid is returned before any more is given. To these injections the usual substances may be added; salt, olive oil, and glycerine, in fact, each of these may be tried in turn in order to free the impaction. The employment of drugs often plays an important part, but the first thing to learn is that purgatives must never be used in any form of ileus, except the faecal impaction, and, as this always occurs in the colon, irrigation will accomplish the same purpose, with less danger and discomfort.

Adenomatous Polypi

The treatment, apart from excision, which is often impracticable when they are multiple, comprises a diet designed to allay the colitis and irrigations with astringents, of which dermatol is the most satisfactory.

Intestinal Neurosis

The symptoms necessarily vary in accordance with the extent of the intestine affected. In lead colic the entire tract may be in a state of contraction for days, with retracted flattened abdomen, while, again, in a localized abdominal neurosis a portion of the small intestine or colon may show a localized stasis above the narrowing, and, slowly developing, may lead to moderate rigidity and symptoms of ileus (vomiting).

Pain usually accompanies the spasm, but is not constant and may disappear, while the constriction still persists. It starts from some point in the abdomen and then streams over its entire surface. Then, again, the severity of the pain bears no relation to the strength and force of the contraction. The success of the treatment is soon demonstrated by a free passage of gas and faeces. In addition to this, the hot hip-bath or electric pad to the abdomen is also very efficacious in relaxing the spasm. Irrigation of the colon with 500ml of warm water, containing a teaspoonful of spirits of peppermint, also aids. Laxatives had best be avoided altogether, for they increase the spasm." - Dr A. Everett Austin, MD in "Diseases of the Digestive Tract and their Treatment", 1916.

Emotions and its Effects upon Colon Function

"Effects of various emotions on colonic motility have been studied by means of emotogenic interviews. In general, expressed feelings of hostility have been associated with colonic hypermotility. A depression of colonic motor function has been observed in conjunction with feelings of hopelessness, inadequacy or self reproach." - Dr Rene Menguy, MD, PhD, FACS, in "Surgical Clinics of North America", Vol. 45, 1965.

Chapter 29

Autointoxication

Macbeth

Act 5 Scene 3

"**Macbeth:** Cure her of that. Canst thou not minister to a mind diseased, Pluck from the memory a rooted sorrow, Raze out the written troubles of the brain And with some sweet oblivious antidote Cleanse the stuffed bosom of that perilous stuff Which weighs upon the heart?

Doctor: Therein the patient Must minister to himself.

Macbeth: Throw physic to the dogs; I'll none of it. Come, put mine armor on. Give me my staff.

Seyton, send out.

— Doctor, the thanes fly from me. Come, sir, dispatch.
— If thou couldst, doctor, cast The water of my land, find her disease, And purge it to a sound and pristine health, I would applaud thee to the very echo, That should applaud again.
— Pull 't off, I say.
— What rhubarb, senna, or what purgative drug, Would scour these English hence? Hear'st thou of them?

Doctor: Ay, my good lord. Your royal preparation Makes us hear something.

Macbeth: (to Seyton) Bring it after me. I will not be afraid of death and bane, Till Birnam Forest come to Dunsinane.

Doctor: (to himself) Were I from Dunsinane away and clear, Profit again should hardly draw me here. They exit."

- William Shakespeare, in "Macbeth", Act 5 Scene 3, 1606.

Another Source of Disorder and of Disease

"An undue retention of the intestinal excretions is another source of disorder and of disease arising out of civilized life. It is produced by affections of the mind, by indigestion, by inattention to the calls of nature, and mechanical obstruction from organic disease, which last is frequently excited by the retained excretions themselves.

The undue retention of the excretions takes place in the larger (or lower) intestines, for until the excrementitious matter arrives here, there is no reason to believe that its propulsion is arrested, although it may be less at one time than at another.

The undue retention of the excrementitious matter allows of the absorption of its more liquid parts, which is a source of great impurity to the blood; and the excretions, thus rendered hard and knotty, act more or less as extraneous substances, and by their irritation induce a determination of blood to the intestines and to the neigh boring viscera, which ultimately ends in inflammation and organic change of the bowels. It has also a great effect on the whole system; it causes a determination of blood to the head, which oppresses the brain and dejects the mind; it deranges the functions of the stomach, causes flatulency, and produces a general state of discomfort.

In civilized life, then, the causes which are most generally and continually operating in the production of disorder and of disease are, affections of the mind, improper diet, and retention of intestinal excretions." - Dr. Burne, MD in London Medical Society, 1833.

"Practically it may he said that the liquids of the contents of the intestinal canal are absorbed in the large intestine. If the faeces stay too long in the colon or, if from disease, etc., the mucosa of that intestine is too permeable, then an excess of the fluids is absorbed and more toxins gain access to the circulation than can he properly and promptly attended to by the purifying organs of the body (liver and others organs).

The want of balance between absorption and purification or elimination leaves in the circulation materials noxious to the economy and a condition of intoxication results. One must remember also that when the faeces are delayed in their passage through the intestine fermentative changes become more pronounced." - Dr J. F. Binnie, MD in "JAMA", 29 June 1912.

A Case of Auto-Intoxication

"Quite recently a case of sudden death in a child, 6 years of age, was reported to me and I made a post-mortem examination the result of which suggested the writing of this note. On careful inquiry no history of any disease could be obtained from the parents which would be likely to bring about the sudden death of the child, only the mother stated that her bowels were "hard to go off."

She was playing about the yard when she dropped down and almost immediately expired. The necropsy was performed in the mortuary of the St. Lucia District Hospital 17 hours after death. The body was found to be that of a well-shaped, well nourished female child. Rigor mortis had passed off in the upper part of the body but was still present in the lower extremities. The larynx and trachea were not obstructed and appeared to be quite normal. The lungs and pleurse were normal. There was a little less than a tablespoonful of serous fluid in the pericardial sac; there was no evidence of pericarditis. The heart had stopped in systole.

The left ventricle contained a little ante-mortem clot which extended to about half an inch up the aorta. The mitral and aortic valves were perfectly smooth and normal.

The right ventricle was quite empty. The tricuspid and pulmonary valves were normal. The oesophagus and stomach were normal and the latter contained about one ounce of a white grumous fluid; its mucous membrane appeared to be normal. The small intestines were normal and contained no worms. The appendix was normal; its position was upwards and backwards.

The ascending colon and transverse colon were empty. The descending colon from the splenic flexure to the sigmoid was a bag of faeces, the contents being more or less a cast of semi-solid faeces, with here and there very hard faecal masses forming lumps of about the size of a shilling. There was no sign of obstruction or contraction or any thickening whatever. The sigmoid and rectum appeared to be perfectly normal. There was only slight distension of the descending colon. The liver and the gall-bladder were normal, so were the kidneys, spleen, and pancreas, the bladder, and the uterus and its appendages. As regards the brain the calvarium was somewhat adherent to the dura mater; the pia arachnoid seemed to be normal.

The lateral ventricles were normal and contained a little fluid but of no unusual quantity. The optic thalami, the caudate and lenticular nuclei, and the internal capsule seemed to be perfectly normal, so also did the pons, the cerebellum, and the medulla. The fourth ventricle was also examined and appeared to be normal. In fine, there seemed to be nothing, with the exception of the faecal distension of the descending colon, to account for the sudden death of the child who appeared perfectly well up to the time of her death. Had she lived she would undoubtedly have suffered sooner or later from intestinal obstruction from faecal retention. I have therefore come to the conclusion that the absorption of poisonous toxins from the bowel, which would in an adult have given rise to a suspension of consciousness until relieved by treatment, caused sudden death in the case of this child, whose vitality presumably was less able to withstand such poisons." - Dr A. B. Duprey, MRCS, Assistant Colonial Surgeon in "Brief notes on three cases of Auto-Intoxication", The Lancet, 1902.

Auto-Intoxication, Overstrain, Exercise and Bathing

"I have known a patient to go two weeks without a movement of the bowels, and during that period take medicine from the 1st to the 200th, inclusive, of what seemed to be the indicated remedy, but when relief did come it was followed by dysentery, prostration and emaciation for over 6 weeks, leaving the patient depressed in body and mind. No such condition would hare resulted had Colonic Flushing been used as it is now understood and used by thou sands who believe in it.

Dr. W. E. Forest in his book "The New Method": "Remember that 'flushing the colon' is a very different procedure from 'taking an injection.' as this is ordinarily practiced. In taking an injection a cup or two of water is thrown into the lower part of the colon up some 6 or 7 inches and almost immediately expelled. If there are any offending matters at the outlet they may be discharged.

The object in 'flushing the colon', on the other hand. is to carry the heated liquid far up the colon. to have it retained as long as possible and then to cause a thorough cleansing of the whole canal. The difference in principle between the two procedures may best be explained by a illustration:

> *"When your coal stove has been run continuously for a long time the grate becomes clogged with cinders and ashes. As a consequence the fire burns dully. You poke and rake at the cinders and get a few out. but their place is taken by others from above and the fire still smoulders. In desperation you at length "dump the grate" and commence the fire anew. Then you have a roaring. cheerful blaze that does one good to see."*

"Flushing the Colon" is similar to "dumping the grate" in your furnace. And all the functions of the body take a new start. To flush the colon properly one should take at least

two quarts of hot water, water as hot as one can bear the hand in comfortably. Put into this water a tablespoonful of salt, there being no better disinfectant for internal organs than salt. A fountain syringe should be used and there are various positions that may be taken in flushing the colon; the simplest is to lie on the right side with the right arm behind. so as to turn the body somewhat. If this causes pain or the water is not retained. lie on the back with the hips elevated, or take the knee-chest position resting the body on the knees and the chest. Usually after a little water has been introduced into the colon a strong desire to pass it out will be experienced.

The flow into the colon should be checked and the feeling resisted. In a minute or two it will pass over. Then the injection should be continued. If, however, the desire be very strong and continuous. it is well to suspend the flushing and discharge the liquid with faecal matters that may be present at the outlet. Then after a minute or two commence the flushing again. After all the water has been introduced the patient lies as quietly as he can and causes gentle contractions or drawing up and relaxing the muscles of the stomach. This movement forces the water alone the colon and loosens up its contents. The abdomen may also be gently rubbed and kneaded with the hands. After a few minutes the patient will rise and discharge the water, a little at a time.

Of course, the first or even the second time one tries to "flush the colon" there may be difficulty in carrying it out as laid down here. Some patients cannot use more than a quart of hot water at first, others not even as much; but the large majority can from the first use from two to two and a half quarts at a single injection. One is apt to feel fatigue and exhaustion immediately after, but this will pass off in a short time. If the bowels are badly constipated. With much hardened and impacted faces in the colon. it will be well to add some pure castile (olive oil) or gluten soap to the water which should always be clean.

The treatment should be repeated until the colon is completely cleansed. which will usually be indicated by the

water coming clean and clear, free from faecal matter, sometimes requiring a large number of injections. and when the system is in a bad condition flushing should be resorted to daily, thoroughly cleansing the colon each time until there is a marked improvement, when the flushings can be less frequently employed.

The good effect of this treatment is not alone felt by the bowels, but by the kidneys as well. Where there is an enlarged prostate, and the urine has much sediment and a strong ammoniacal odour, this colonic treatment will save you many a troubled hour and prolong the life of your patient.

Antiseptic Treatment of Intestinal Troubles

The lack of success that met the efforts of the old school in the treatment of intestinal diseases led to experiments that have been productive of value to thousands of patients treated. Roiling suspected drinking water for typhoid is the first step of these experiments; flushing the colon with sterilized water is another step. I have carried out a line of treatment in which intestinal antisepsis plays a most important part for the last 20 years, and I have never lost a patient, although many of the patients had not a change of bed linen or a bath during their sickness. In treatment of erysipelas, after thoroughly flushing the bowels, carry out the regular treatment I have outlined for typhoid and you will be surprised to see how rapidly all the symptoms subside. - Dr. F. S. Bloss" - Dr C. Spencer Kinney, MD, in "Auto-Intoxication, Overstrain, Exercise and Bathing", 1905.

The Treatment of Constipation

"You must also impress the patient with the idea that your treatment is going to overcome their constipation and that his bowels will move as soon as this is done. He should be instructed to visit the toilet every morning and attempt to move his bowels whether he has a desire to do so or not. Antitoxic Treatment While treatment is being directed

towards the removal of the causes and the correction of the pathology of the diminished bowel activity some measures must he used to overcome the bad effects due to the absorption of the toxins that are produced when the fecal material remains too long in the colon. This treatment will be considered under 3 heads: Cleansing Colon, Prevention of Putrefaction, and Elimination of the Toxic Material.

1. Cleansing Colon. Injections of water into the colon is the only satisfactory method of removing the accumulated fecal material. No drug or other laxative can make the colon even approximately clean. The enema for cleansing purposes should be taken in a different manner from that for relaxing the spastic colon or for increasing the tone of the atonic colon. The technic is given above. Sometimes it is necessary to take several smaller enemas rather than one large one. These cleansing enemas should be taken at east once a- day for a week, or until no more old faecal material comes away with the water.

2. Diet. All foods that tend to diminish bowel activity should be avoided as putrefaction is encouraged by the retention of food in the colon. Animal proteids of all kinds (meat, cheese) are especially prone to putrefy and usually should be avoided until the patient is entirely well. The Milk Diet may be used in some cases if at least three bowel movements can be had each day. Buttermilk or sour milk is especially good if it does not constipate, which it rarely does. The dietary directions given above (under preventive, Corrective and Palliative Treatment) can be followed in most cases. The bacteria of putrefaction thrive best when the contents of the colon are of an Alkaline reaction. It is usually desirable and many times absolutely necessary, that certain articles of food be used to produce an Acid Fermentation in the colon. The bacteria producing acid fermentation, as well as the acid colon contents, will destroy or inhibit the growth of the Putrefactive Bacteria. The best foods for this purpose are those containing an abundance of Starch or Fruit Sugar. Cooked Starch is digested very easily in the small intestines

so very little of it reaches the colon. Raw Starch resists the digestive action of the mouth, stomach and intestines to a much greater degree. Much of it reaches the colon undigested Here it undergoes acid fermentation which is especially desirable in those cases that present marked symptoms of Toxemia.

3. Elimination. In addition to preventing the formation and accumulation of toxic material in the colon, it is necessary in all severe cases to use some means to Eliminate from the Body those toxins that have already been absorbed. This can be done by increasing the activity of the Other Eliminative Organs. The activity of the skin may be increased by the prolonged hot bath, electric light bath, vapour bath, or short cold bath. The activity of the kidneys may be increased by drinking an abundance of water, by prolonged applications of heat to, or stimulating manipulation of, the lower dorsal region of the spine. The activity of the lungs may be increased by breathing exercises or by any active exercises that markedly increase respiratory activity. Massage and the slow sinusoidal current are also of value, as they increase the combustion of the waste Material in the body." - "The Medical Standard", Vol. 42, 1919.

Intoxication or The Accumulation of Excess of Toxins

"Auto-intoxication clearly explains the increased supply of pyrsemic material, time has been given for the excretion of the accumulated excess of toxins, whilst no more fresh poisons have been formed than are capable of being excreted during the day, and so the metabolic functions have been stimulated to a point capable of dealing with the extra nutriment. The removal of the toxaemia is the factor of most importance, and it is astonishing to witness the daily regeneration of neurotic patients who have for years suffered from dyspepsia and constipation, and to note that confinement to bed is not inconsistent with a free and regular daily evacuation of the bowels.

Colonic Cleanliness Compulsory

From all we have said, it is impossible to escape the conviction that to maintain the body in a state of physiological cleanliness and thus escape disease, the colon must be physiologically clean.

Clean Up, Clean Out, and Keep Clean

From what one observes in a case of mucous colitis, bacterial ferments and toxins must act as strong irritants to the epithelial cells, if one is to judge by the great excess of mucus present in those cases. For mucin, as Klug tells us, is the natural protective agent in the alimentary tract, absorbing the excess of enzymes and thus protecting the alimentary canal from the action of its own digestive juices as well as hastening the onward passage of its contents.

The Secret of Good Health

The secret of good health is the elimination of stasis, the lubrication of the wheels of life so as to lighten the labour of the driving forces, and Nature will condone many a dietetic indiscretion or hygienic offence if only this fundamental law be observed. In the application of this law in private medical practice the general practitioner will be compelled to use many artifices and much diplomacy to retain the affections and confidences of his patients.

Nothing offends them more than to be asked to change their habits of life. Their desire is to be able to break every known law of health; and when they are called upon to pay the penalty, they expect complete absolution in a bottle or two of medicine.

They do not want to be cured, but are content to be patched up sufficiently to continue their practice of self-indulgence in its various forms. The doctor who suggests radical changes such as change of diet, the banishing of drugs, the substitution of naturally slow cures for rapid,

nauseating, relieving agencies," - Dr Alexander Bryce, MD in "Intestinal Toxaemia", 1920.

"Dr. Smith very aptly spoke of two kinds of intestinal conditions: toxemias with putrefactive substances, the amins, in the intestinal contents and those in which the wall of the intestine is involved, in which we are dealing with a bacterial infection. In the latter condition he considered vaccines useful. This is exactly what I have brought out. To sum up, intestinal putrefaction in simple cases may be cleared up by catharsis and starvation, and the other more difficult conditions, in which the wall of the intestine is infected, must be handled by diet, mental suggestion, hygiene and autogenous colon vaccines. In our experience the autogenous colon vaccines are most essential." - in "JAMA", 27 Oct. 1917.

"It is no longer possible to ignore the importance of alimentary toxemia or autointoxication as a factor in the production of disease. To no other single cause is it possible to attribute one-tenth as many various and widely diverse disorders. It may be said that almost every chronic disease known is directly or indirectly due to the influence of bacterial poisons absorbed from the intestine. The colon may be justly looked upon as a veritable Pandora's box, out of which come more human misery and suffering, mental and moral as well as physical, than from any other known source. At least 9 out of 10 of the possible benefits to be derived from treatment is to be secured by combating intestinal stagnation. By such regulation of diet and habits as to secure a thorough evacuation of the bowels at least 3 times a day, or after each meal." - Dr John Harvey

Kellogg, MD in "Colon Hygiene", 1927.

Intestinal Auto-Intoxication, Its Treatment by Irrigation

"During normal digestion, there are present in the intestine peptones, crystalline bodies, aromatic substances and ptomaines, which are toxic, but changed into less toxic bodies and eliminated by the stools. Whenever their number is very great, relief is obtained by a profuse intercurrent diarrhea, while the remaining toxic bodies, having been acted upon partially by the digestive mucosa, are bacteriological examination, claiming that every changed into the liver, then enter the circulation, and being further changed by the antitoxic glands, finally are eliminated through the skin, kidneys and lungs. Many patients have suffered for years, and perhaps the greater part of their lives from constipation, and the condition has been aggravated as they have grown older and more sedentary in their habits.

There Are Well Marked Symptoms In The Autointoxicated

Among the prominent are:

1. A drawn expression;
2. Sunken eyes;
3. Frequently the so-called liver spots;
4. Often the patient is pot-bellied and the skin is dry and harsh;
5. It is quite common to have the bowels greatly distended by gases, shortly after meals, necessitating the loosening of the clothing;
6. The breath is frequently very offensive;
7. The odour of the stools is sickening, while the stools are constipated, hard, lumpy, and of small caliber or semi-liquid and mushy, and upon examination mucus and membranes are found.
8. Patients are often unable to concentrate their thoughts,

and there is loss of memory.

9. There is great fatigue and depression of spirits.

10. Pruritus.

11. Urticaria.

12. Eczema or furunculosis caused by intestinal auto-intoxication may be present.

These are not all the symptoms that may arise from intestinal auto-intoxication, but they are sufficient to emphasize the importance of the subject, and the necessity of having the intestinal discharges examined by a competent person before and during the treatment of the patient. An examination of the urine to determine the amount of indican present in cases of intestinal autointoxication can be made. The treatment must of necessity begin with careful attention to the kind and amount of food taken. Vegetables should largely replace meats, and in fact the patient will gain faster if meat is not partaken of at all. There should be a liberal use of water internally, drinking between meals two or three quarts of water daily. The treatment is not simple and is one that requires attention and generally a long time.

The routine method is the administration (tea spoon) of salt in six ounces of hot water every 2 hours until the stools are watery. The colon should be distended with warm water containing (tea spoon of bicarbonate of soda). The patient should be in the knee-chest position. The water should flow slowly fully distending the bowels, but not causing pain. This washing out of the bowels should be done daily for about one week and the urine should be examined again for indican, and if it is found present, the indication is that there is need of another course of cathartics. The treatment is to keep the intestines as clean as possible." - Dr Wm. L. Dickinson, MD in "Ohio State Medical Journal", 1909.

"As they are obvious; a clear complexion, white even teeth, glossy and thick hair, firm figure, and eyes that mirror a contented soul, all indicating a clean alimentary canal through which the food passes and is

perfectly absorbed, which in turn, produces a pure blood stream flowing to every part of the body." - Lillian Taylor, in "Clean Up the Blood Stream and Live", 1944.

Conditions and Symptoms Associated with Intestinal Autointoxication

"Intoxication: As Bouchard has demonstrated, the gastrointestinal tract is the source of the largest number of poisons that cause autointoxication, then clearly this is the part of the body that calls for special attention and treatment. To prevent the enterotoxins from penetrating into the system by absorption: this means measures directed to as speedy and thorough elimination as possible through the Emunctories. To stimulate the action of the liver, which is a physiologic destroyer of poisons which have been absorbed, is an important procedure in the treatment of intoxication. Whatever the variety of intestinal intoxication, in acute cases rapid and almost heroic elimination may be necessary at the outset.

In chronic cases, where autointoxication is the underlying and predominant condition, or an aggravating and complicated feature, systematic hygiene, dieting, and constant or intermittent measures of extra elimination are indicated. In most instances of intestinal autointoxication local symptoms predominate, associated not infrequently with skin manifestations. The symptoms are pain, vomiting, often diarrhea, some fever, followed by a general erythema or urticaria. In such attacks of mild or moderate severity recovery usually follows promptly after gastric lavage, irrigation of the colon, and free purgation. Subjectively, depression, headache, fatigne, tinnitus aurium, and vertigo are complained of.

The more marked these symptoms, with the concomitant expulsion from the bowel of sulphuretted hydrogen, the more evident the predominance of putridity.

Habitual Constipation

Closely associated with unhygienic habits of eating in the production of intestinal autointoxication are habits of constipation. The absorption of poisons from the latter cause has given rise to the term copremia, which, however, has lost its current expression in the substitution of the phrase intestinal autointoxication. For, it is undoubtedly true that such symptoms may arise from a slow passage of faeces through the intestines, by giving more time for the absorption of the products of bacterial decomposition.

The Liver

Where constipation is associated with symptoms of catarrhal jaundice it is not improbable that autointoxication of intestinal origin is to blame for the jaundiced condition.

Circulatory Disorders

Constipation with autointoxication is responsible for many instances of palpitation of the heart, particularly in neurotic individuals. Various vasomotor disturbances, such as coldness of the extremities, flushings of the head, and vertiginous attacks are ascribable to the autointoxication produced by constipation.

Nervous System

Gastrointestinal intoxication is held to be responsible for a large number of disorders of the nervous system in which constipation is simultaneously a constant feature.

Among these may be mentioned:

Migraine,
Neuritis,
Epilepsy,
Psychasthenia,

Neurasthenia,
Myasthenia,
Dementia,
certain Psychoses,
and even Paralysis.

In such disorders the evidence of intestinal toxemia appears in the recognition of dietetic errors, the occasional occurrence of acetonuria, toxicity of the urine and perspiration, and often the excessive elimination of aromatic sulphates. Headache is one of the most common symptoms of constipation of the habitual type. Persons who are subject to headaches from other causes are particularly liable to suffer when they are constipated and autointoxicated. In these patients at times relief can be obtained only by thorough lavage of the colon.

Neuralgia is undoubtedly produced by intestinal putrefaction in certain individuals of constipated habit. Fatigue of body and mind, out of all proportion to the actual amount of exertion put forth, may often be relieved by treating the underlying constipation and autointoxication by purgation and colonic flushings. Insomnia, Nightmare, and, in children, Grinding of the Teeth and Night Terrors, are also subject to intestinal toxemia, particularly in those of Neurotic Predisposition.

Patients suffering from: Neurasthenia, Melancholia, Hypochondriasis, and allied conditions are much more sensitive to the toxic effects of intestinal putrefaction than are those who have a normal nervous system. There is here illustrated a vicious circle: that is, Depressed Conditions of the nervous system very readily lead to constipation and autointoxication; and the latter condition, in turn, aggravates and excites the nervous symptoms. It is in cases of Psychasthenia and Neurasthenia especially where it is necessary to follow systematic cleaning out of the bowel, along with what ever treatment may be indicated in other lines, such as massage, bath, electricity, and the like. No matter what other treatment may be applied, a successful

issue is not obtainable unless the usually associated intestinal autointoxication is at the same time radically overcome. Vertigo and Tinnitus Aurim have been noted as prominent symptoms in undoubted cases of intestinal toxemia that have been relieved within an hour where lavage of the colon has been practiced.

Epilepsy is due to Gastrointestinal Intoxication: It is increasingly probable that some obscure poison, or poisons generated in and absorbed from the intestinal tract are responsible for a large number of the cases. It is certainly true that epileptic patients treated dietetically and medicinally along these lines do improve as to frequency and severity of convulsive attacks.

Ocular Affections

Itislcy, Dc Schweinitz, Ziegler, and other well known oculists have shown conclusively that the intestinal tract is often the source of autotoxemias which are directly or indirectly responsible for such ocular diseases as blepharitis, keratitis, iritis, and certain neuroretinal lesions. In connection with the absorption of intestinal toxins from putrefactive decomposition it has been found in some instances that prolonged constipation is liable to cause recurrent intraocular hemorrhage.

These eye conditions can be relieved only by the most studied attention for a long time to the correction of gastrointestinal errors by dietetic, digestive, antiseptic, and purgative measures. Even in so mild a symptom as occasional muscae volitantes it is advisable to relieve a constipation and sign of putrefaction which are not infrequently associated.

Cutaneous Disorders

It is a common observation that Urticaria, Erythema, and Angioneurotic Edema, as well as Pigmentation of the Skin, especially around the eyes, may all be due to intestinal

autotoxemia, with or without chronic constipation. Some of the Eczemas are likewise of gastrointestinal toxic origin in children as well as in adults. The recent doctrine of Anaphylaxis as applied to the alimentary canal rationally explains the marked affinity for putrefactive substances which the skin manifests in those having systems peculiarly sensitized to certain articles of diet.

Psoriasis is a typical example of chronic skin disease where the avoidance of meats (proteids) is a sine qua non for successful results. This means that intestinal putrefaction is reduced to a minimum if not prevented altogether. Some authorities maintain that dipsomania may be excited by an acute intestinal toxemia; and it is true that, a helpful element in the treatment of alcoholism in its various forms consists in vigorous and sometimes heroic measures directed to cleansing the lower bowel. In the treatment of the uncontrollable vomiting of pregnancy it should not be forgotten that this symptom may be due to the absorption of intestinal toxins. Lynch, of New York City, has recently pointed out a relationship between chloroform post-anesthetic poisoning, due to autointoxication instead of sepsis as was previously supposed. In the way of final dietetic suggestions to aid in keeping the bowel movements regular, soft, and free, and to reduce as much as possible the tendency to putrefactive changes within the intestine.

In the prevention of the chronic degenerative diseases of modern civilization the early detection and energetic and constant regulation of autotoxemic tendencies and processes is bound to play a predominant part; and the control of these will largely depend upon the control obtained in preventing and treating successfully the abnormal bacterial and chemical decompositions, and the disorders of the gastrointestinal tract." - Dr Howard S. Anders, AM, MD, Professor of Physical Diagnosis, Medico-Chirurgical College, Philadelphia, in "Therapeusis of Internal Diseases, Infectious Diseases, Intoxications, Constitutional Diseases", Vol.2, 1913.

Indicanuria

(presence of excessive amounts of indican in the urine)

"As far back as medical literature goes it has been known that the intestines were capable of elaborating poisons which produce widespread systemic morbid processes; hence purgation was one of the earliest methods of treatment and throughout all time has held a prominent place in the relief of bodily ailments. With the onward march of medical knowledge some advance has been made in differentiating the various forms of intestinal intoxications, both as to the abnormal chemical processes involved and the clinical phenomena produced.

Among the abnormal intestinal processes resulting in the formation of toxic substances is putrefaction, by which in the restricted sense is meant abnormal transformation of proteid material under the action of bacteria, especially of a group of anaerobic bacilli in the lower intestines. Various toxic substances are thus formed, such as indol, skatol, phenol, and others. These products may be partially absorbed into the circulation even from the colon, which has usually been supposed to be resistant to this absorption, and in circulating through the body give rise to many morbid manifestations before being eliminated by the kidneys.

They enter into chemical combination as the conjugate or ethereal sulphates and glycuronates, and circulate and are excreted as such. Thus, indol is oxidized and unites with potassium sulphate to form a double or conjugate indoxyl-potassium sulphate, the urinary indican. Similar sulphates are formed by the other putrefactive bases, and conjugate glycuronates are produced in similar manner.

Although theoretically the putrefaction and absorption of the putrefactive products may be abnormal, yet under the practical conditions of life small amounts of these substances are produced, absorbed, and excreted without causing any material ill effects. Their presence in the system in these small amounts may be looked upon as normal; when present in larger amounts, however, they may produce toxic

manifestations.

Their action in this respect may be very subtle and obscure, and a variety of morbid conditions of a functional character in remote parts of the body and apparently unrelated to intestinal conditions may be set up. In obscure cases of this sort, therefore, it becomes important to have some means of measuring intestinal putrefaction in order to determine what bearing the latter may have upon the clinical symptoms and thus to further therapeutic efficiency. Unfortunately our means of estimating intestinal putrefaction or absorption of putrefactive products are incomplete.

One method consists in the determination of the relative ratio of the conjugate to the mineral sulphates in the urine. Normally the ratio is about 1 to 9; an increase of the conjugate sulphates indicates increased putrefaction of the proteids. This method is too laborious for routine clinical use, and, further, is not always entirely conclusive, as it leaves out of account the putrefactive bases excreted in combination with glycuronic acid and also the variations of sulphur metabolism. Other equally tedious methods consist in the determination of phenol, cresol, etc., in the urine. Other diagnostic tests which may possibly prove to be indicative of increased putrefaction are the dimethylamidobenzaldehyde and urorosein (indolacetic acid) tests. Still another method, which is in extensive use, is the approximate determination of indican in the urine.

The presence of an abnormal amount of indican in the urine (to which condition the term indicanuria is applied) can be ascertained by simple tests. The test gives no information as to other putrefactive products besides indoxylpotassium sulphate, and probably putrefactive toxemia is possible without the indican being increased. But as indican is ordinarily the most abundant of the putrefactive products indicanuria is an important index of the occurrence of intestinal putrefaction.

Besides the putrefaction of the food in the alimentary tract, putrefactive products may be generated from the tissues of the body in necrotic conditions, putrid, stagnant,

and chronic suppurations, etc. These sources of indican are exceptional, and after excluding them, indicanuria may be definitely accepted as an indication of the excessive putrefaction of proteid food in the intestines; although the absence of indicanuria does not necessarily disprove the existence of putrefaction.

The foregoing statement of the genesis and significance of indicanuria represents the present consensus of opinion on this subject.

Various investigators of the condition have attempted to carry the significance of indicanuria a step further back in the etiological chain and to establish its causal relations to the conditions which de termine and control intestinal putrefaction. Simon considers intestinal putrefaction and hence indicanuria as closely dependent upon the hydrochloric-acid content of the gastric juice, a normal amount of hydrochloric acid through its antiseptic action preventing putrefactive processes, while a deficiency of the acid will produce increased putrefaction and indicanuria.

He regards the relation as being so close that the degree of acidity of the gastric juice may be directly judged by the elimination of the indican in the urine; nevertheless, he usually found indican present in gastric ulcer with its accompanying hyperacidity. He found indicanuria rare in simple constipation, and in diarrheal conditions due to colon lesions. Musser and Pearce observed the occurrence of indicanuria in various disorders, especially septic conditions localized in the gastro-intestinal tract, e. g. in typhoid fever. Gilbert and Weil from a study of 2 cases of diabetes conclude that hepatic insufficiency may lead to indicanuria, on the theory that the liver when acting normally may arrest the indican formed in the intestine, but that an incompetent liver permits its passage into the general circulation and thus the development of indicanuria.

Wadsworth is tempted to observe:

> *"that nervous disorders depending upon malnutrition and those that influence nutrition markedly have a*

tendency to cause indicanuria."

Wells concludes as follows:

"Indican is present in the urine in sufficient quantity to be detected during simple constipation, the amount varying somewhat according to the duration of the faecal stasis. Obstruction of the large intestine produces a much greater degree of indicanuria than the obstruction of the small bowel and causes in a few hours the most intense reaction, so intense as to be almost characteristic. Large quantities of pus produce a reaction which probably varies with the amount of absorption that is occurring. In carcinoma of the stomach there is usually a reaction when the disease is advanced. But in these cases the indicanuria is produced by intestinal putrefaction, which is in turn caused by inability of the weakened general system to digest properly the proteid foods rather than to the cancer. Epilepsy and neurasthenia are accompanied by a varying degree of indican, and probably for reasons spoken of in connection with cancer."

Enriquez and Binet do not find that the condition of the gastric secretion has any influence on the formation of indican; nor that hepatic insufficiency produces indicanuria. They found indican increased in all cases of habitual constipation; and when found in diarrhea they regard this as resulting from faecal retention. Jaffe states that indican is most increased in intestinal obstruction, and is also increased in diffuse but not circumscribed peritonitis, in which there is a considerable retardation of peristalsis; also in gastroenteric catarrh, cholera Asiatica, typhoid fever, gastric carcinoma, and some blood diseases.

Porter draws some fine distinctions in the results of the tests for indican, and makes corresponding interpretations

as to whether they indicate simple putrefaction or the association of other toxic conditions, and as to the state of the hepatic cells and the functional activity of the liver. He classifies the etiologic factors concerned in the causation of the indicanuria as chiefly excessive or improper diet.

From the foregoing representative articles it is seen that there is diversity and contradiction of opinion on some points involved; there does not appear to have been as yet any attempt to definitely place the blame for indicanuria, physiologically speaking, upon the organ or organs really causing it. A study of 82 cases of indicanuria which have been observed by me in my private practice during the past 6 months shows that no one condition or disease is common to all or to a majority of these cases.

The symptom-complex was, however, quite constant, each individual complaining of vague nervous sensations, such as slight continuous vertigo which was increased in dimly lighted places; dull headache; marked languor and drowsiness, especially during the periods of digestion; inability to concentrate the mind upon the work; a decided tendency to early fatigue with complete muscular relaxation; unusual mental irritability; vague pains in the lower limbs. These symptoms are usually ascribed to neurasthenia, but they disappear with cure of the toxemia.

The gastric analyses in these 82 cases gave the following findings:

In 39 there was marked hyperchlorhydria;

In 6 hypochlorhydria;

In 13 achylia gastrica;

the remainder showed normal gastric content.

Of the 82, 28 had more or less decided gastric dilatation; while 5 showed varying degrees of ischochymia.

The blood in 27 of these individuals showed well-marked anemia, which cleared up with the disappearance of the indican. This probably explains those chlorotic cases which resist all forms of internal medication, and which are promptly cured by colonic irrigations.

Of the remaining 55 cases one was a case of pernicious anemia.

The other 54 were normal.

This series of cases included 4 having ulcer of the stomach.

Of these 4, 2 had marked indicanuria all the time.

One had no indicanuria until the middle of the 5th week of treatment at the time he was put back upon a more or less solid diet the indicanuria lasted but 4 days and has never reappeared.

The 4th case, one of large chronic ulcer at the pylorus, which came to operation and later to autopsy, showed the indican reaction only very rarely and even then but a slight trace, during the months he was under my observation; he also had marked pylorospasm with stagnation of the gastric contents. From my experience I judge that indicanuria in cases of gastric ulcer and hyperacidity is a complication rather than an essential consequence of the gastric disorder.

During this period we have had under observation 5 cases of cancer of the stomach in which the records of the urine are available, and in which the diagnosis was verified by the course and fatal termination. In 3 of these 5 cases the indican was normal throughout the periods of observation; in 2 others there was a moderate increase of indican.

In one case of cancer of the sigmoid, which came to operation, the indican was slightly increased now and then during the early months of the disease, but later it entirely and permanently disappeared. Regarding the bowel-action in this series, 49 suffered from constipation; 6 had chronic diarrhea; 8 were troubled with constipation alternating with diarrhea; the remainder had normal daily evacuations.

According to my observations indicanuria occurs in habitual constipation only when the general health has become impaired through neglect or from the pernicious cathartic drug habit by which the intestinal digestion is impaired.

I believe it is invariably an expression of intestinal toxemia. That this intestinal toxemia can produce constipation through its inhibitory action upon the nervous system seems certain. It is equally true that when the organism is quite sensitive to the action of the poisons

elaborated or when the amount of these toxins is increased beyond the point of tolerance, a sharp diarrhea occurs in the effort to eliminate rapidly the poison; and when the amount again falls below the point of tolerance a condition of constipation results.

This readily accounts for many of those troublesome cases where constipation alternates with diarrhea over long periods of time. From a study of the urine of patients suffering with catarrhal jaundice, cholelithiasis, cancer of the liver, and diabetes, I believe the occurrence of indicanuria with any affection of the liver to be a complication and not a direct result of the diseased liver.

That some cases of complete intestinal occlusion do not exhibit indicanuria is shown in a case of acute obstruction of the sigmoid which is just now under my observation. This woman has been constipated for 30 years, being compelled to take purgatives to secure every bowel action. For the past few weeks, under my direction, she had used enemata with good results.

One day she stepped down from a high curbstone with a sudden jolt and experienced a severe pain referred to the hypogastrium. From that moment, for a period of 6 days, she did not pass either faeces or flatus by rectum. At the operation there was found complete obstruction of the sigmoid due to traction of a tumour causing acute angulation. At no time immediately before the occurrence of the obstruction, during its continuance, or after the operation was there marked indicanuria.

From the close study of these cases it seems certain that the seat of elaboration of the poisons giving rise to the indicanuria may at times be in the lower segment of the small gut, but that they are largely absorbed from the colon. I have come to this conclusion because I have found repeatedly that cathartics by mouth will, in 98% of all cases, either cause no change in the amount of indican or abruptly increase it; while in the remaining 2% they lessen the amount or cause its disappearance only to recur shortly.

Upon the other hand, when these 98% cases are subjected to thorough High Colonic Irrigations with normal salt

solution the indican in 70% of the cases either abruptly disappears or is markedly reduced in amount; and if the irrigations are continued daily for a shorter or longer period, and at the same time the individual is limited as to the amounts of food taken, the cure is made permanent.

Upon the other hand, if the individual is kept upon exactly the same diet and does not take Colonic Irrigations, while the amount of indican may and often does vary much from time to time, yet the condition with its pretty constant train of symptoms continues indefinitely.

I have often noticed that, when a purgative has been taken during the course of a treatment as above outlined, there is a temporary reappearance or increase in the amount of indican which does not subside until the effects of the purgative have entirely passed off. This also to my mind is added evidence in favour of the opinion which I have expressed as to the seat of this natural laboratory and its distributing center.

The absorption activities of the various portions of the intestinal tract seem to have an important bearing on the genesis of indicanuria. In the colon, where indol is probably chiefly formed, absorption of it is considered to be poor under normal conditions and hence the largest part of the indol is passed with the faeces and is not taken up by the blood; but when conditions are abnormal the indol which at times is formed during the disturbed conditions in the small gut, where it is not normally produced, is passed into the colon and if the absorption is pathologically increased it is readily taken up and gives rise to toxic effects and indicanuria.

The following deductions may be drawn from a close study of the 82 cases of indicanuria here analyzed:

1. The seat of formation of the toxins which give rise to indicanuria is in the lower segment of the small gut, as well as in the colon.
2. The chief distributing center of the toxins is the colon.
3. The underlying cause producing the toxins is imperfect

digestion of proteid foodstuffs in the small gut. Among the most frequent causes for this disturbed intestinal digestion are depressed nerve action due to overwork or disease; amounts, rather than quality, of food taken in excess of the ability of the intestines promptly to take proper care of it; too great preponderance of one class of food taken over too long a period, when at the same time there may be more or less nerve depression.

4. The symptoms of indicanuria per se are not those of intestinal indigestion, with the exception of cases in which the degree of the putrefaction is so intense, or the mucosa is so highly sensitive, that toxins act as irritant poisons and cause diarrhea. The symptoms are quite uniform and present a more or less constant symptomcomplex of a nervous or cerebro-spinal type. The symptoms bear a direct relation to the degree of indicanuria. Upon the other hand indicanuria and its symptom-complex bear an inverse relation to the presence of symptoms of ordinary intestinal indigestion or of so-called "biliousness."

Fever is not a symptom of indicanuria and when present is due to other causes. The almost constant symptom-complex is as follows: The individual complains of malaise; a constant but slight headache inability to concentrate his mind; an intense drowsy feeling but at the same time more or less troublesome insomnia; a constant more or less marked vertigo, which is greatly increased in dimly lighted corridors and rooms, so that he does not walk in a straight line from one point to another; impaired memory and great mental irritability.

5. The symptoms manifest themselves as soon as indican appears in excess in the urine, but persist for a greater or less time after the urine becomes normal, according to the duration of the indicanuria; for instance, a physician affected with indicanuria for a period of 5 days was entirely relieved of the symptoms within 24 hours after the disappearance of the excess of indican. On the other hand, in another patient who had suffered from this condition for 8 years toxic symptoms continued for 3 or 4 months after the disappearance of the indican and then gradually subsided.

6. Indicanuria in Washington is 4 times as prevalent from January first to June first as during the remaining months of the year, which fact goes to strengthen my assertion that the underlying cause for the disturbed intestinal digestion is nerve depression. For here where the year's work is crowded into a few months, brain fag begins in the early spring.

7. The cure for indicanuria must come through preventing the formation of toxins and, what is quite as important, the elimination of the supply already on hand." -Dr William Gerry Morgan, MD, Washington, DC, Instructor in Diseases of the Stomach and Bowels, Georgetown University, in "American Medicine", Nov. 1908.

Intestinal Putrefaction is a Forerunner in Many Cases of Arteriosclerosis

"We know that intestinal putrefaction is a forerunner in many cases of arteriosclerosis. When the blood-circulatory system is being injured by colon bacillus toxins, we may also have neurasthenia, for these poisons attack the nerves as well as other structures, and neurasthenia is found chiefly in individuals of families who have passed the higher stages of development, and who are prone to intestinal putrefaction.

Indican in the urine is said to be the index of various toxins of intestinal origin, and we know that the colon bacillus is one of the most abundant bacteria which develop out of normal proportion in the bowel of patients who have lost part of their resistance, and whose urine contains indican.

A vicious circle is established when defective protective organs allow the colon bacillus to increase to a point where its toxins produce tissue-changes, these tissue changes in themselves giving rise to still further disturbance of function of glands engaged in protection, nutrition and excretion. In many cases of infectious and contagious diseases, like scarlatina, measles, typhoid and diphtheria, the organism found in the urine is the colon bacillus. In several forms of acute gastro-intestinal disturbance, like cholera morbus,

particularly in elderly people, the kidneys may be so filled with colon bacilli that a fatal result is due to this complication, which could have been averted by recognition of the colon bacillus in the urine and application of the Thomson treatment. Colonic Flushing to reduce the primary toxic source." - Dr Robert T. Morris, AM, MD, Professor in Surgery at the New York Post-Graduate Medical School New York in "Journal American Medical Association", 2 March 1912.

"I have obtained excellent results in many conditions from Colonic Lavage, using a normal salt solution which is retained for 30 minutes, and of which about 30% only will be absorbed in that time. I use normal salt solution because, being isotonic, it will be less irritating to the wall of the bowel and less damaging to its epithelium, and because I believe that a larger quantity will be absorbed. I have had no injury to the kidney." - Dr. C. L. Minion, Asheville, N.C. in "Journal Am. Med. Ass.", 13 April 1912.

The Thyroid Gland and the Toxemias

"For the purpose of clarity, Bainbridge (Illinois Med. Jour., Sept., 1921) has divided thyroid conditions into 7 classes:

Class 1. Mild types of thyroidism which clear up when the toxic elements of the system are removed, as:

a) The atrophic gland, with small isthmus, which may increase in size .and function when the toxemia is relieved.

b) The hypertrophic gland which may function normally when the intestinal stasis or other toxic condition is removed.

Class 2. In this class-hyperthyroid conditions may be present for a long time, until a sudden nerve strain, a fright,

or an aggravation of the toxic elements may cause acute and pronounced symptoms, often with obvious goiter.

Class 3. This class includes the cases in which the thyroid is so atrophic that treatment for toxic conditions alone will not relieve the patient and thyroid treatment must be instituted and sometimes continued indefinitely.

Class 4. These patients have not only a chronic hyperthyroidism, but a marked increase of thyroid activity, because of an acute, or a subacute, abdominal condition. They may be cured by operation upon the alimentary tract.

Class 5. In this class are placed the cases in which degeneration of part of the gland has occurred and irritates the remainder, causing hypersecretion. Operation on the goiter is necessary to lessen the abnormal stimulation of the gland.

Class 6. In this group we have pronounced systemic goiter where operation is indicated and where abdominal conditions also require surgical interference to effect a cure.

Class 7. These are cases with marked thyroidism, large or small gland, but demanding operation. The system is so thoroly poisoned with thyroid toxins that the necessity of ligation, or some other form of thyroidectomy, is absolutely indicated. Often the patient is so toxic that a period of preparation for operation is required. Here a careful realization of the complexity of the toxic state may be of aid. Lessening of the hyperthyroidism, by topical applications of ice to the neck, physical and nerve rest, eliminating possible acidosis by alkalies and free catharsis, is often of advantage.

In addition, the use of alkaline Colonic Irrigations, and attention to any focal infection may prove of distinct value. This class needs no examples. It is mentioned because a realization of the handicap from focal and especially intestinal toxemias in pronounced systemic goiter may aid

materially in reducing mortality." - in "American Medicine", June 1922.

The Relation of Seminal Vesiculitis to Impotence

"The method of treatment may be outlined as follows: Internal remedies to neutralize the urine in cases of over acidity; rectal irrigation every night, with normal salt solution or strained flaxseed tea at a temperature of 40° to 48°C, by means of the double-current rectogenital tube, and massage of the internal genitals every 5 days, followed immediately by a urethral irrigation whenever there is chronic prostatitis or posterior urethritis associated with this condition." - Dr Ramon Guiteras, MD in "New York Medical Journal", Vol.72, 1900.

Treatment of Fermental Diarrhoea

"Irrigation of the Bowel: At the very onset of the diarrhoea free catharsis with castor oil, followed by Irrigation of the Bowel with saline solutions 2 or 3 times the first day and then once or rarely twice a day subsequently should be instituted.

Type of Diet

While this clearing out process is being carried out food should be withheld for a period of 24 hours or until the temperature breaks, and water given freely, in amounts equal to that of the previous feeding. Prolonged starvation is not desirable, especially if the fermentation is proteolytic in type, for the causative bacteria will turn to the protein constituent of the tissues for food, and cause a secondary and more serious disturbance.

Lactobacillus Bulgaricus

The object to be attained is the introduction of food which will inhibit the growth of the causative bacteria by organisms of antagonistic nature. In the majority of cases this can be accomplished by the use of pure cultures of lactic acid bacilli, of which the Bacillus Bulgaricus is the most efficient. After the acute symptoms have subsided, bear in mind that the fats and sugars are not well tolerated. Milk should continue to be ripened with the B. Bulgaricus cultures for some time. The dried tablets of the B. Bulgaricus are less reliable than the broth or milk cultures.

If a fermentative diarrhoea does not yield to such treatment the inference is that the cause of the fermentation is a lactic acid producing organism, such as in the Bacillus Acidophilus. In such cases lactic acid milks of any variety are contraindicated, and the most rational treatment is to attempt to alter the reaction of the intestinal contents by the use of precipitated casein. When the stools have become alkaline, less fermentable carbohydrates than milk sugar should be used, such as dextrin-maltose, and preferably a preparation that is relatively high in dextrin.

The rapidity with which fats may be added depends largely upon the amount of butyric acid fermentation which is present. Olive oil homogenized in the milk mixture are much better tolerated than cow's fat, owing to the almost complete absence of the volatile fatty acids.

When the fermentation is proteolytic and the stools alkaline, the theory of treatment is exactly opposite from that described. The lactic acid mixtures are still indicated, but the protein should be reduced to the minimum and high carbohydrates given. In either case the fats are best entirely excluded at first and then given in small and gradually increasing percentages only when the child is convalescent. Beef juice, broths and albumin are best never given in any of the fermentative diarrhoeas, as they are foreign proteins and in the impaired condition of the intestinal walls, may pass through and sensitize the infant.

Infectious Diarrhoea

Infectious diarrhoea, in contradistinction to diarrhoea with fermentation, assumes an invasion of the intestinal mucosa and submucosa by bacteria with the production of pathological lesions. These vary according to the infectious agents and their virulence. There may be only catarrhal inflammation with superficial ulcerations or hyperplasia of the solitary follicles and Peyers patches, often with deep ulcerations, and with pseudomembranous exudates involving large areas of the intestines. The severity of the symptoms are generally but not always in proportion to the severity of the Ileocolitis.

Hyperplasia of the Mesenteric Lymph Nodes, rarely going on to suppuration with degenerative changes in the Parenchyma of the Liver, Spleen and Kidneys occur as Secondary Lesions. Infectious diarrhoea should be looked upon as an acute infectious disease, not unlike typhoid fever in its origin, but differing in its onset and symptomatology according to the agent of the infection.

The bacteria are present within the tissues, producing their toxins from their growth on the tissue cells themselves. The toxaemia resulting is primarily caused by such action and only secondarily by the products of the fermentation of the intestinal contents. The onset of infectious diarrhoea is usually acute, with high fever and considerable severe toxaemia.

The stools at once become frequent, loose, with much mucus and blood and usually pus after a few days. They may or may not show signs of fermentation and are usually alkaline. The characteristic of the fever is its persistence; it is high or low depending on the virulence of the infecting bacteria. When ulceration is present, blood is also persistent. Pain and tenseness is prominent, and the abdomen, often distended at first, is soon sunken and only slightly tender. Vomiting may or may not be present.

The bacteria which are the cause of the infectious diarrhoea may be divided into 3 classes:

1. The various types of the dysentery bacillus (chiefly the Shiga and Flexner bacilli),
2. The B. Welchii (or gas bacillus),
3. Other organisms such as the streptococcus, colon bacillus and B. Pyocyaneus.

The type of infection can only be determined by the examination of the stools and not by the symptom or cause of the disease. The exact bacteriological differentiation is not practical outside of a well equipped laboratory, but it is comparatively easy to determine whether the gas bacillus is present in considerable numbers, a point of considerable importance in the treatment. The dysentery bacillus thrives best on proteins, the gas bacillus on carbohydrates. It is, therefore, important in the dysentery types of diarrhoea to cut down protein food to the minimum and to give relatively high carbohydrates, while in gas bacillus infections carbohydrates should be excluded so far as possible and moderately high proteins given. Fats are best entirely excluded during the active stages of the disease.

The clinical test for the gas bacillus is as follows:

a) A portion of the stool is added to a test-tube of milk or sugar solution and gently boiled for a few minutes to kill all bacteria except those in a spore state.
b) The contents of the tube are then added to a sterile fermentation tube and incubated for 24 hours. The displacement of a considerable amount of the fluid (1 inch or more) indicates the presence of the gas bacillus in sufficient numbers to warrant the reduction of carbohydrates to the minimum in the subsequent feeding.
c) The test naturally gives no evidence as to the presence or absence of the dysentery bacilli or the other possible organisms.
d) If the gas test is negative, carbohydrates may be given with reasonable safety. Whatever the result of the bacteriological test, there is little reason to give more than

the minimum protein requirement.

e) If the stools are alkaline, the B. Bulgaricus cultures, or diluted lactic acid milk with low proteins and moderate carbohydrates, preferably dextrin-maltose, make a reasonably safe diet after the initial period of starvation, catharsis and irrigation.

While these indications for feeding have proved useful, it is not meant that there is any specific food to control an infectious diarrhoea. Fermentation of the intestinal contents can be discouraged, food of a kind least adapted to the growth of the infecting agent can be given, but as the infection is within the walls of the intestines, it must run its course very much as in typhoid fever. While the disease is active, the bacteria cannot be starved out or killed by antiseptics, nor will the stools become normal and free from mucus, pus and blood, until natural reparative processes have been established.

As this is a matter of time, it is necessary to provide food of some sort and the question is limited to what kind, in view of the nature of the infections, is most likely to keep down fermentation and provide the least favourable media for growth of the active agents of the infection. Having determined these factors, the management of the case is that of any acute infectious disease, with toxaemia and deficient elimination." - Dr. Maynard Ladd, MD, in "A Handbook of Practical Treatment", Vol.4, 1917.

Diarrhoea and Bacteria

"It is well known that diarrhoea is a symptom of various diseases. There is the diarrhoea superinduced by ulcer of the rectum, there is the diarrhoea caused by intussusception (one part of the intestine folds inside), and the diarrhoea the result of intestinal catarrh. Aside from these and others of a similar character there is a class of specific diseases which manifest themselves by diarrhoea, such as typhoid fever, cholera, and tuberculosis. It may be said, on the whole, that all of these, however much they may differ in their origin,

are characterized by a similar pathological fact, namely, that there is a change in the mucous membrane of the intestine.

The mucous membrane of the intestine plays a very important role in the normal process of digestion, and that a disturbance of the digestive process, such as diarrhoea is a symptom of, is coincident with certain conditions of the mucous membrane. There are a number of reasons why the evacuations in diarrhoea are fluid. The food does not remain long in the jejunum or ileum, and consequently has little time for absorption.

The peristaltic action of the intestines may cause these unabsorbed substances to be rapidly carried out. Another reason why the movements are fluid may be due to the phenomenon of transudation (the process of passing through a membrane). I may define it in this manner: watery constituents of the blood originating in the capillaries or in the glands force themselves out of the intestinal walls into the lumen. A pathological change takes place in the mucous membrane of the intestine in most cases of diarrhoea, and that this phenomenon may itself either hurry or retard peristalsis, we know.

Rosenheim has shown that if catarrh is present in the large intestine, mucus is provable only through the microscope; that chronic catarrh of the small intestine never occurs alone; that catarrh of the large intestine produces constipation interrupted by irregular intervals of diarrhoea; that in chronic catarrh of the rectum, with or without disturbance of the large intestine, mucus appears in the faeces. From this we may conclude that the intensification of the peristalsis is not entirely dependent on mechanical influences.

The pathological elevation or reduction of the motility of the intestines takes place when irritation and susceptibility either rise above or sink below the habitual degree, but this modification has its source often in other than mechanical conditions. Even the chemical is known to exert a similar influence. In infectious diseases, to be sure, we know certain toxic substances act both ways, producing diarrhoea or constipation. Penzoldt has shown that the question of

intoxication within the intestines during the process of assimilation of foods is very important. He has called attention to what he significantly calls auto-intoxication.

Physiological material retained in the intestines, and the products of a physiological character resulting from over production of normal or abnormal materials, may produce conditions to which his felicitous use of the term may very fittingly apply. Both retention and overproduction may constitute pathological phenomena, and by irritation of the nervous system, either through mechanical or chemical factors, may produce diarrhoea.

This question of food toxines, suggested by the phenomenon of self-intoxication, opens up what seems to me a new territory for aetiological analysis of the symptom in question. An abnormal condition of the intestines seems to be coincident with the presence of bacteria and their toxins; the disappearance of the intoxication seems to be coincident with the removal from the intestines of the poisonous bodies. I must in all candor confess that that is all we can posit as yet. Pasteur observed the presence of bacteria in the intestinal canal, and he maintained that they were essential for the maintenance of the person. We know that micro-organisms have their habitat in the healthy body as much as in the diseased, and that the bacterial flora within the intestines have a physiological as well as a pathogenic significance greater than that in any other organs. The fermentative and putrefactive processes in the intestines have their inception largely in these.

If we can not get at the very seat of bacteriological activity within the intestines, we can attain a high degree of probability with regard to their functions, for, since the discovery of the cholera vibrio by Koch, this has be come comparatively easy. As Koch was the first, so Escherich is one of the latest who has given his attention to the bacteriological examination of the faeces. This latter has found in the case of milk faeces of an infant a very clear evidence that the bacterial flora are determined in the intestines by the food stalls, and that with a varied diet a differentiation of the bacteria always appeared. This

dependence of the bacteria upon the food, as evidenced in the faeces, shows that the gastric juice does not possess adequate capacity to destroy bacteria.

Suckendorff went even so far as to prove this point by interesting experiments on his own person. There is no bacterial vegetation in the intestines which we can say originates there; we may maintain, in fact, that the kind of bacteria and their multiplication and diminution depend almost entirely on the kind and mass of food. And we may also maintain that the stomach is far from being an absolutely sterilizing organ.

In view of this latter fact there is a likelihood that certain cases of diarrhoeas have a microbic origin, for evidently the seat of microbic diarrhoeas may be within the stomach itself, without the stomach being able to arrest the cause. I may also add, returning to the subject of peristalsis, that this phenomenon which attends diarrhoea may find its explanation in the bacterial vegetation in the intestine. Billroth has gone so far as to maintain that there are more bacteria in the large intestine than in the small intestine. Escherich goes further: he says the food mass, after leaving the stomach, becomes very much thinned through the gall and intestinal juices and becomes correspondingly unfavourable to bacteria.

Now this mass, he continues, remains in the small intestine but a short while, so that these germs are given little time for multiplication. In the large intestine, however, this food mass moves more slowly, the intestinal fluids seize hold of it with more deliberation, and the intestinal germs are afforded a better opportunity for relative multiplication.

The number of bacteria begins to increase at the duodenum until they attain a great enormity at the caecum.

It is possible also that the quality of the bacteria in the small intestine differs from the quality of those in the large intestine. It would appear then as quite logical that the peristaltic action undergoes a corresponding modification, dependent upon the local reactions of the several sections of the intestinal tract. With regard to motility and peristalsis,

we may say that where motility is reduced fermentation sets in, inasmuch as through the retarded action the bacteria have a longer opportunity to multiply; while good motility, which gives bacterial multiplication no chance, does not allow extensive fermentation.

Rosenheim says that intestinal mycosis plays a larger role than is supposed, and he suspects a series of anomalies in the process of assimilation due to their presence. He also speaks of certain interesting pathological changes, due to bacterial causes, which he believes show that abnormal decomposition takes place in the intestines.

There is a great probability that the catarrh and other inflammations of the intestinal mucous membrane do not always originate from any specific or chronic cause. For it seems, in fact, as if the numerous bacteria of the intestine have the power to produce certain diseases. I shall mention a few of the most important bacteria that seem to have a bearing on the pathological condition of the intestines. Of these, the most prominent is Bacillus coli communis.

Bacillus coli communis

It occurs always in the faces, and is present in the meconium as well as in milk and meat faeces. It has an anaerobic development upon a culture of glucose. Escherich has shown that the growth of this bacterium has no effect upon sugar of milk or casein. The acidulation of glucose is one of the essential marks of this bacterium. It does not feed upon the foods which are introduced, for under normal conditions these are not present any longer in the large intestine, but it feeds upon the secretions of the intestinal wall.

Macfadyen and others say that they live upon the carbohydrates in the tract, and withdraw from the body a corresponding amount of these, and may there fore be regarded as a source of injury to the organism. The bacterium is aetiologically significant in cholecystitis, cholangeitis, dysentery, appendicitis, peritonitis, and

diarrhoea. It may cause these affections either when its virulence is intensified or when it enters organs bordering on the intestines, and superinduces disease not only of the intestinal mucous membrane, but also of the neighbouring organs. The fact that this bacillus acidulates glucose and coagulates milk, and acidulates alkali cultures, differentiates it from the typhoid bacillus, to which it other wise bears a great resemblance.

Bacillus lactis aerogenes

Present in large numbers in the intestinal canal of such as feed on milk; less numerous in the faeces of the same (Escherich). Possesses proteolytic qualities in the same slight degree as the coli communis. Its most significant character, Escherich says, is its capacity to ferment quickly sugar of milk. No other intestinal bacterium has that power. It approximates the pneumobacillus of Friedlander in behavior and development. Manneberg believes that this bacillus does not play an important role in human pathology.

Its physiological significance is greater, since it ferments sugar of milk without the presence of air. This is of great influence in the intestines of infants. The Schleier bacillus (Escherich) resembles the two bacilli mentioned above as to its morphological character. Bacillus sublilis, Ehrenberg. Nothnagel found it in the faeces. Boas found it in the stomach contents. It has no fermentative effect on carbohydrates, but it is intensely proteolytic; it is also aerobic. It can not multiply in the intestines if their contents are free from acids. Pathologically it seems inactive.

Bacillus enteriditis, Gaertner

Has been found in the meat of an enteritic cow and in the pancreas of the adult who had eaten of this meat; also in septic pneumonia of a newborn child. Proteus vulguris, Hauser. Found along with coli communis in dysentery. Baginsky found it in the evacuations of infants suffering from diarrhoea. It decomposes and putrefies albuminous

bodies.

Bacillus putrificus coli, Bienstock

Also decomposes albumin, but more slowly under exclusion of air. Boas says it occurs frequently in the stomach contents.

Bacillus liquefaciens ilei

Decomposes meat with the odour of old cheese. Does not coagulate milk.

Bacillus butyricus, Prazmowski

Occurs sparsely in faeces in which amylous and vegetable remnants are absent. Boas has found it in the empty stomach. It is anaerobic; it ferments starch, dextrin, sugar, and lactic acid into butyric acid, carbonic acid, and water, but can not ferment sugar of milk into butyric acid. Its physiological and pathogenic significance must be great because of its specific fermentation.

Bacillus of green diarrhoea, Lesage

Lesage, experimenting on rabbits, has produced diarrhoea of a short duration by intravenous injections and by introduction into the stomach. In the intestinal canal lactic acid in moderate solution kills the bacillus.

Spirilla

Are not infrequently found in the contents of the intestines, though as yet they have not been cultivated.

Streptococcus coli gracilis, Escherich

Constantly present in the intestinal canal during meat foods. Absent in nursing children.

Streptococcus coli brevis

Frequent in milk faeces also found in raw milk.

Streptococcus liquefaciens ilei

Forms inactive lactic acid from glucose.

Saccharomyces albicans

Cultured out of diarrhoetic stool and out of raw milk.

Micrococcus tetragenus

Wagner and Bollinger describe an intestinal mycosis in such as have died of typhoid affections. It is known to cause inflammations.

Actinomyces

At times found in the stool; may reach the intestine through the discharge of pus." - Dr Charles D. Aaron, MD, Instructor of Materia Medica, Detroit College of Medicine, in "New York Medical Journal", 8 May 1897.

The Diagnosis and Treatment of Arteriosclerosis

"Arteriosclerosis represents but one link in a chain of fibroid changes, resulting usually from some form of toxic irritation. The allied organs principally involved in these sclerotic changes are the kidneys, lungs, stomach, and prostate. Secondary structural results may arise, as shown in atheroma with calcareous deposition, gangrene of extremities, cerebral, retinal, or other haemorrhage, thrombosis, cerebral atrophy, and myocarditis.

These conditions, like the gouty and rheumatic, keep up one of altered chemical irritation and more or less storing up within the various glands, in abnormal quantity and quality, of substances which may only periodically be liberated into the circulation in quantities sufficiently large to produce other marked symptoms, but constantly sufficient to

produce arterial contraction. Further, the existent systemic absorption in intestinal toxaemia is relative, dependent not alone upon the quantity or quality of decomposition product within the intestine, but very largely upon the tissue vitality or lines of resistance which influence both the absorption and the neutralization of the absorbed substances.

From some combination of these common causes the foundation is established from which gastro-intestinal toxaemia, rheumatism, gout or other suppressed metabolic state, or several in conjunction, may arise (though years may pass before the trouble becomes evident to the individual), leading to hypertension. Whatever may be the cause for establishing hypertension, the latter is to some extent automatically maintained through the counter-recoil of the musculo-elastic arterial walls against the unnatural force exerted within them, leading to arteriosclerosis and even atheroma with calcification. Intestinal disturbances are of infinitely more direct importance than gastric in the causation of arteriosclerosis. It is of the utmost importance, when possible, that of these irregularities any and all which make for the production of intestinal toxaemia be eradicated.

Intestinal antiseptics are here comparatively useless, except for the most temporary relief. Once the condition has become developed, in which not only bacterial decomposition is excessive, but also portal engorgement, when the overworked liver-cells can no longer continue to return through the biliary channels their repeatedly-absorbed portal vein poisons, the immediate treatment indicated is removal by thoroughly clearing out the intestinal tract either with castor oil followed by saline.

This temporary relief and useful beginning should be immediately followed by irrigation of the colon. The intestinal decomposition decreases with improved state of the mucosa and cessation of abnormal absorption or toxaemia. The colon should be thoroughly irrigated, at first daily, later less frequently, with at least three quarts of normal salt solution" - Dr Byron Sprague Price, MD, in

"International Clinics", Vol.2, 25 Series, 1915.

> *"After a long period of fruitless medicinal treatment, one thinks of surgery. Here, after medicinal means have been exhausted, we must proceed to surgical intervention, which consists in either an artificial anus at the caecum, or, on account of the annoyance of liquid stools, at the descending colon. Both of these operations are intended to free the portion of the colon below it of faecal matter, and can also be used for flushing; this operation counts many cures to its credit." - Dr A. Everett Austin, MD in "Diseases of the Digestive tract and Their Treatment", 1916.*

Intestinal Toxemia

"Its entity as an etiologic factor in diseases of various forms is being recognized more and more every day. To consider the subject from a clinical standpoint. Many conditions that are now obscure will be an open page.

1. Intestinal Toxemia, as an etiologic entity.
2. General Symptomatology, of cases resulting from intestinal toxemia.
3. Treatment.

1. Intestinal Toxemia as an Etiologic Factor

For some time I have been doing work for men in lines other than my own, and I am astonished at the results obtained in these cases and with no other treatment than that directed toward the intestinal tract. The two conditions in which the most good was accomplished were those cases suffering from headache and those in which the neurasthenic symptoms predominated. I have found that about 95%, of all cases of temporal headaches are of intestinal origin, and all are amenable to treatment if the headaches are forgotten and

the alimentary tract handled properly.

Many of the so-called hysterical and neurasthenic patients who have been laughed at and doped with sedatives make a prompt recovery when treated rationally through the bowel. I desire to call attention to a number of other conditions that can be traced directly to toxic disturbances in the intestines, namely:

Neuralgias of the 5th nerve which have resisted all other forms of treatment. Recently I have treated 2 cases of facial neuralgia. In 2 weeks he was well and no return in months from a persistent condition which had lasted for about 3 years uninterruptedly. The second case was not so severe, but yielded readily to treatment. I have had 3 cases of intercostal neuralgia and 2 of sciatica, all of long duration, in which a decided result was obtained. Acne and eczema are both traceable to this fountain head of diseases. I have treated several cases of stubborn chronic eczema with good results in a few weeks and no return in months after. The ordinary treatment for this condition had failed. If in a case of urticaria we look to the intestinal tract, why not in eczema and acne?

Within the last few months I have, in several cases of atonic dilatation of the stomach, used no local treatment whatever for the stomach, and much to my surprise found that under treatment of the bowel all the gastric symptoms have disappeared. I have seen some cases of asthma improve following the removal of the intestinal toxemia. There is no doubt but that very soon we shall find a direct connection between diseases of the eye and the intestinal canal. Arteriosclerosis will undoubtedly be traced sooner or later directly to this source.

2. General Symptomatology

The most common type giving excellent results which has come under my observation is the neurasthenic. The mental picture of this type is decidedly characteristic. They frequently seek advice on account of some intestinal disturbance. There is extreme nervousness with marked

depression and many forms of mental imaginings, varying from a slight disturbance almost to the border-line of insanity. Indeed some might properly be termed insane.

For instance, one case which I had under my care was that of a man who was positive that he would die of tuberculosis. He had consulted eleven other physicians, the first of whom had told him that he had tuberculosis. Up to that time he had only been depressed following an attack of grippe. When I saw him he had been unable to attend to his business for 5 months and the idea was so deeply rooted it seemed almost impossible to eradicate it, yet in 2 weeks this man was able to go to the office for 1 hour or 2 daily and in 4 weeks was active the entire day, and at present is controlling one of the large wholesale establishments in Chicago, and all that was done was to relieve the intestinal toxemia.

The intestinal trouble is, generally: constipation, occasionally diarrhea or diarrhea alternating with constipation. The depression is just as marked when diarrhea is present as when constipation is present. Headaches, especially temporal, are very frequent accompaniments. Insomnia is often very annoying. There is restlessness and inability to concentrate the mind. Belching, bloating and pyrosis are present in most cases. Flatulence is excessive in most cases and is often increased after treatment had begun. The patient complains of nausea and occasionally of vomiting.

Difficulty in deglutition is another type. I recently dismissed a patient who for months was treated by a throat specialist without results. After satisfying myself that no mechanical obstruction existed, and taking into consideration her extreme neurotic condition, I directed my attention to the bowel with the result above stated. The appetite varies. In some cases it remains unimpaired, in others it is poor, while still others are capricious, ravenous at times, preceding headaches occasionally and disappearing entirely at others. Drowsiness is present in almost every case, as is also dizziness. Binging in the ears with vertigo simulating Meniere's disease is not at all uncommon. Cardiovascular sluggishness manifests itself in cold hands

and cold feet. I have a patient at the present time whose hands perspire profusely under the least excitement.

A weakened muscular tone is generally found. It ranges from a slight weakness to an actual pain, especially of the leg muscles on walking.

The rheumatic or gouty pains in the muscles and joints give these patients much inconvenience, one of the common seats of trouble being directly over the sciatic notch. Lumbago is not at all uncommon. In women menstrual disturbances appear in many cases. Loss of weight varying from a few pounds up to 15 to 20 or even 30 or 35 pounds is not uncommon. I have 2 patients at the present time, one of whom lost 30 and the other about 33 pounds in the last few months. Pyorrhea is undoubtedly the result of faulty metabolism and toxemia. Dr. Skinner, a dentist of Chicago, informs me that Dr. Black, also a dentist, claims that by improper feeding or overeating he is able to produce lime salt formation on the teeth in from 6 to 12 hours, or that he can keep it off indefinitely by proper mastication and diet.

We all recognize the fact that an individual suffering from autointoxication has a markedly lowered vitality, the bodily resistance not being sufficient to withstand the attack made by organisms against it. For years we have been treating this condition unconsciously, for practically no matter what the condition, the first thing a physician does after being consulted by a patient is to cleanse the alimentary tract and thus aid in relieving the body of the offending material. Chemical analysis of the stomach contents shows anything from an anacidity to a hyperchlorhydria. The analysis of the urine is of the utmost importance and it is in this way that the best observations can be obtained on the patient.

3. Treatment

The treatment of these various conditions is simple. I make no attempt to treat the condition symptomatically, but begin by treating the alimentary tract, paying particular attention to the diet and the mechanical treatment. Medicines are of little permanent value, but procure rapid temporary relief

during the time the patient is undergoing the mechanical and dietetic treatment. As soon as the urinalysis is completed and the total amount of the urea, phosphates, chlorids, sulphates and ammonia has been determined, I begin by cleansing the bowel with a mixture of sodium bicarbonate. For the nervousness I use in most cases a combination of a saturated solution of one-quarter-grain doses of ex. cannabis indica. Fowler's solution is a very useful agent where there is any thyroid disturbance. As tonics I use tr. nux, tr. gentian co. and tr. cinchona co. before meals if indicated.

Diet

The diet is really the most important part of the treatment. As we all know the greatest amount of putrefaction comes from a proteid diet and if there is an excess of indican and ammonia, showing a large proteid intake, I immediately transfer my patient to a carbohydrate and fruit diet by eliminating from the diet list all meats, cheese for a time. Where formerly I thought it impossible to put a hyperchlorhydria patient on a fruit and vegetable diet I do so now with impunity and have no unpleasant results whatever. At first the patient finds some difficulty with this diet, but soon becomes accustomed to it and nearly always ends by commending it.

Mechanically I depend principally on colonic flushing. Not the ordinary large enema, but an injection, depending more on the temperature of the water than anything else, the temperature ranging from 38 C. to 41 C. As soon as the patient complains of a feeling of fulness the water is siphoned out through the same tube and the bowel again filled, then siphoned again. This is continued until from 4 to 12 litres of water is allowed to pass through the bowel. These Flushings may be given daily or on alternate days, as the case demands.

Muscular exercises and manual or vibratory massage are excellent adjuncts in treatment. The ordinary case takes from 4 to 10 weeks to establish a cure. The origin of the toxic condition, I am of the opinion that the colon bacillus is the

important factor. The results obtained in cases which a few years ago would have been considered incurable are so satisfactory as to almost verge on the marvelous." - Dr Milton H. Mack, MD, Professor of Stomach and Intestinal Diseases, Chicago College of Medicine and Surgery, in "Illinois Medical Journal", Sep. 1911.

Discussion

"About 60%, of the cases which come to the general practitioner are gastro-intestinal. They show some toxic condition. One point in regard to these cases is the effect of displacements of the abdominal organs, the various ptoses, on intestinal intoxications. It is a well-known fact, and it is being recognized by gastrologists, that too much attention has been paid to the chemical analyses of the stomach contents, and not enough to the physical examination. It is well known also that a great many cases of hyperchlorhydria and achylia gastrica and gastric ulcer exist with displacement of the organs.

This condition is known by various names. It is also well known that if any one reads a paper now on movable kidney without considering the displacement of other organs, such a paper would be incomplete. If you have a movable kidney, you can make a positive diagnosis of gastroptosis, more or less, or enteroptosis, or general splanchnoptosis. If you study the physical diagnosis of diseases of the stomach by means of outlining this organ by percussion and auscultatory percussion also, if necessary, by various media finding the lower border of the stomach, you will find displacement of the lesser curvature.

If one would make a diagnosis of displacement of the stomach, it is very essential to have the patient in an upright position, and by giving 4 or 5 glasses of water consecutively, and then percussing the dull area after each glass of water, you will easily find displacement. Examination for the different splashing sounds is almost of as much importance in the diagnosis of diseases of the stomach as is the examination of the chemical contents. This splashing sound

may be made on the abdomen with the knees drawn up; it may be 1 or 2 inches below the umbilicus. If you treat these patients for intestinal toxemia or for gastric symptoms alone you do not get results.

They need some form of support. The operation for floating kidney is being done away with. The improvement you get is not by treating the kidney, but by treating the atonia gastrica; the best treatment' of these conditions is by means of Rose's adhesive belt. I recall a case of ulcer of the stomach treated quite recently in which the treatment was preceded by severe hemorrhages, and only after four weeks treatment in bed, with rectal feeding for the first 10 days, did all the symptoms disappear.

The patient got up, but had a sort of toxic condition of the intestines, as was shown by an immense amount of flatulence. I applied a Rose belt, which relieved this. This treatment will relieve a great many cases of hyperchlorliydria. In treating cases of hyperchlorhydria, it is well to look for gastroptosis, and you will be surprised how the pains in the dorsal region of the back will disappear under an abdominal support. In regard to the treatment by means of diet, that is very important. I make it' a point to tell my patients to eat no meat whatever. I allow milk and eggs, but I believe, above all things, a vegetable diet, except in these cases of pronounced hyperchlorhydria, where a carbohydrate diet does harm, is preferable." - Dr. E. J. Brown, DM, Decatur in "Illinois Medical Journal", Sep. 1911.

Asymptomatic Conditions of the Colon

"There are many silent or asymptomatic conditions of the colon which can be detected by roentgenologic study of the colon. Analysis of the records of 808 asymptomatic patients in 356 cases (44%) disclosed many unsuspected abnormal conditions involving the colon were encountered. Complaints of these patients related only to anorectal disorders such as haemorrhoids, fissures, pruritus ani and

fistula-in-ano. Excluding cases in which the colon was redundant, there were 395 reports of abnormalities:

Spastic Colon	131
Diverticulosis	118
Diverticulitis	11
"Ptosis"	35
Ulcerative Colitis	29
Megacolon	4
Carcinoma	3
Polyposis	2
Amebiasis	2
Malposition	2
Ileitis	1

A higher percentage of spastic colons was found in the 5th decade of both female and male patients." - Dr Sydney D. Weston, MD in "Asymptomatic pathology of the colon as disclosed by air contrast enema", Diseases of the Colon & Rectum, Sep.-Octo., 1961.

Chapter 30

The State of the Colon & Health

"The caecum and the ascending portion of the colon, are the seat of almost all those difficult diseases, which, if neglected, form the basis of many incurable maladies that soon prove fatal, or render the wretched patient miserable for life. An Oration by Dr. Burne, London Medical Society, will show the importance of injections (enemas) as a means of restoring the alimentary system to its natural state of activity:

> *"An undue retention of the intestinal excretions, is another source of disorder and of disease arising out of civilized life. It is produced by affections of the mind, by indigestion, by inattention to the calls of nature, by mechanical obstruction, and from organic disease; which last is frequently excited by the retained excretions themselves. The undue retention of the excretions takes place in the large intestines. The undue retention of the excrementitious matter allows of the absorption of its more liquid parts, which is a source of great impurity to the blood; and the excretions, thus rendered hard and knotty, act, more or less, as extraneous substances, and by their irritation induce a determination of blood to the intestine and to the neighbouring viscera; which ultimately ends in inflammation and organic change of the bowel itself. It has, also, a great effect on the whole system: it causes a determination of blood to the head (the many cases of sudden death, by apoplexy, etc., are mainly attributable to these causes), which oppresses the*

brain, and dejects the mind; it deranges the functions of the stomach, causes flatulence, and produces a general state of discomfort. In civilized life, then, the causes which are most generally and continually operating in the production of disorder, and of disease, are, affections of the mind, improper diet, and retention of the intestinal excretions."

Indigestion

Indigestion is, perhaps, the most comprehensive word used to signify a diseased state, for it relates not only directly to affections of the alimentary passages themselves, but indirectly also to most of the various diseases to which human beings are subject.

Therefore is it a subject still worthy of, and deserving the attention of those whose minds, unshackled by prejudice or professional etiquette, will boldly put forth a work which, freed from all false theories, and technicalities of language, is adapted, by the simplicity and truth of its diction, to the perusal and comprehension of the proudest and lowliest reader in the land.

The author has used the term "boldly", and advisedly so; being well aware that the promulgation of a system at once so useful, efficacious, and so well calculated, by the most simple and easy means, to prevent, and cure those disorders dependent upon indigestion and its consequences, as the one recommended in the pages of this book, cannot continue to receive that universal assent and support which have been hitherto so generously granted to it, without altering, in a great measure, that line of conduct which the medical practitioner of the present day observes to his patients, by pointing out to the latter, the absurd folly of taking nauseous and, at best, pernicious drugs, for the relief of that disease which, when unaided by other means, they seldom cure, whilst a remedy simple, sure, and efficacious, relieving even the worst cases, is hid from them by those who, members of a gentlemanly and honourable vocation, as they affect to be,

do but at best pander to the ravages of a disease which they profess to, but do not or cannot, cure.

The benefit derived from the use of injections (enema) has been known and understood since the earliest ages; and their simplicity and utility are no sooner seen than acknowledged, superseding at once the use of all drugs, by preventing, as well as curing, the disease.

Of the Use of Lavements in Various Diseases

"It will now be my object to point out some of the diseases for the relief and cure, of which I recommend the use of Lavements; and first, those that require the injection of warm water only, and which are likely to be alleviated by this simple means, without the use of medicines; whilst at the same time, an aggravated case of any of these diseases may require medicated injections, or other general treatment under the advice of a professional man.

Acidity of the stomach.
Acute rheumatism.
After pains.
Asthma.
After intoxication.
After menstruation.
Bilious complaints.
Bilious colic.
Cholera morbus.
Cessation of the menses.
Chronic rheumatism.
Clap.
Constipation.
Consumption.
Convulsions: of infants, of pregnant women, after childbirth.
Corpulency.
Costiveness: during pregnancy.
Cramp in the stomach.
Delirium.

Dysentery: during tedious or protracted labour.
Delirium after childbirth.
Dentition.
Difficulty of breathing: in passing water.
Dry gripes.
Epilepsy.
Fever; with a view to remove putrescent matter.
Fistula and piles.
Flatulence.
Fatigue of body or mind.
Flatulent colic.
Gall stones.
Gripes of infants during dentition.
Getting wet in the feet.
Gleet.
Gout.
Gravel.
Green sickness.
Headach.
Habitual costiveness, without other apparent disease.
Heartburn.
Hectic fever.
Hysterics.
Iliac passion.
Inflammation of any of the organs of the chest or abdomen.
Irritation of the rectum.
Itching about the anus.
Indigestion.
Inflammation of the brain.
Inflammatory sore throat.
Influenza.
Insanity.
Introsusception of the bowels.
Irregular menstruation.
Jaundice.
Lumbago.
Malignant fever: sore throat.
Milk fever.

Miscarriage.
Nervous diseases.
Obstruction of the bowels: of the menses.
Pain in the stomach: head, during pregnancy.
Palpitation of the heart.
Painful menstruation.
Piles: during pregnancy.
Pregnancy.
Putrid fever: sore throat.
Rheumatic gout.
Rheumatism
Rupture.
Retention of urine.
Sciatica.
Stoppage of the discharge after delivery.
Stone in the bladder or kidneys, producing inflammation

"A glyster of warm water, by serving as a fomentation to the parts, may be of considerable service in inflammation of the bladder, and the lower intestines."
— Dr. Buchan's Domestic Medicine.

Strangury.
Stone in the ureter.
Spasmodic affections.
Scalding of the urine.
Stricture in the rectum: urethra, oesophagus.
Suppression of the menses.
Swelled testicle.
Typhus fever.
To those of sedentary habits, who are generally costive.
Ulcerated sore throat.
Worms.

Nothing can be more simple or easy than the application of a Lavement; it is entirely unattended with pain or inconvenience of any kind, and a single trial of it has in every in stance within the author's observation, led persons

to be anxious for a repetition, as frequently as their case required it.

Those who suffer from dyspeptic complaints, will find that in most cases they may rely on this practice, without the aid of useless or nauseous medicines." - Dr Edward Jukes, MD "On indigestion and costiveness, and the use of Lavaments", 1833.

Recto-Colonic Enteroliths and Concretions

"Intestinal calculi have been found in every portion of the intestine. Writers generally agree that they are met with more frequently in the colon and small intestine than in the lower bowel. The 53 cases I have collected show the contrary, for out of this number 34 were located in the rectum.

They are found more frequently in women than in men and in persons past 40, only one case (except those included in the writer's table of cases), that of Peacock's, having been reported where the patient's age was under 30. Brinton maintains that the average age is 53 and a half years. There are many varieties of intestinal calculi and concretions, and I have been accustomed to group them as follows:

1. Gallstones (biliary calculi).
2. Hairy concretions (bezoars).
3. Avenoliths (oat stones).
4. Enteroliths (intestinal calculi).
5. Pancreatic calculi.
6. Urinary calculi.
7. Coproliths.
8. Prostatic calculi.
9. Miscellaneous concretions.

Gallstones (biliary calculi): Are met with more frequently than are all other forms of intestinal concretions. They enter the intestine through the duct when small, and by ulceration and anastomosis when large and irregular in

shape. In Dennis 83 cases of gallstone obstruction operation and autopsy demonstrated the fact that the stones were not parallel to any particular location of the intestine.

The writer has on several occasions found gallstones in the feces, and has twice removed them from the rectum where they had become firmly encysted. In each case they caused a great deal of pain, irritation, and sphincterismus. They were composed largely of bile pigment, lime, and cholesterin.

They may be single or multiple; occasionally they are found in a mass invested in a coating of fecal matter and salts, forming a concretion of sufficient size to fill the rectum, producing complete obstruction.

Hairy Concretions (bezoars)

Balls of hair are frequently found in the stomach and intestines of inferior animals that lick themselves. Similar concretions have been found in the human subject, Ritchie's case being the most celebrated of this class. He treated a girl for ileus and intestinal rupture, but autopsy proved that her suffering was caused by a mass of hair completely filling and making a perfect mould of the stomach; two smaller masses were found in the intestine. Cases have been reported where hair-balls have found their way into the rectum caused by the breaking down of dermoid cysts of the ovaries. The writer knows of a case where a tumor, orange-size, composed of finely masticated wood fibre was successfully removed from the intestine of a woman. It was caused by the chewing and swallowing of soft wooden tooth-picks, a not uncommon habit in certain parts of the West.

Avenoliths (oat stones)

Concretions of this variety are rarely seen in this country, but are frequently met with in Scotland. They are found principally in persons who consume large quantities of oat meal ; they occur less frequently at the present time than formerly, because the Scotch are now eating more meat and less meal. Avenoliths vary from cherry to orange size, are of firm consistence, and are oval or flat in shape, dependent

upon location and pressure, and are yellow in colour unless mixed with salts, when they have a whitish appearance. They are formed of crescentic rings of vegetable fibre intermingled with lime, water, feces, and silica from the oat (Maclagan). During the Irish famine of 1846 many concretions of a similar nature were encountered caused by eating the husks of potatoes. In some cases it was found that a cherry or plumb-stone acted as a nucleus for their formation. Any vegetable food having long and coarse fibres when eaten in large quantities may result in the formation of an intestinal concretion of this type.

Enteroliths (intestinal calculi)

Stony concretions other than gallstones have been encountered in all parts of the intestine, but less frequently. Enteroliths are rarely met with under 40, and occur more frequently in women than in men. They may be small and irregular in shape, or large and oval, and vary in weight from a few grains to fifteen ounces. When multiple they occasionally weigh even more. Niemeyer has recorded a case where 32 stones were evacuated, weighing in all 1kg and 100gr. They are located in the colon and rectum more frequently than in the small intestine.

Composition

The make-up of intestinal calculi differs slightly. Most of them, however, are composed principally of the phosphates of lime, magnesia, ammonia, and organic matter. They are not uncommon in persons who have taken for a considerable time large doses of mineral remedies, such as bismuth, chalk, benzoin, and lime.

The author has on three occasions removed through a colostomy opening enormous black, putty-like masses, composed of bismuth. In each case large doses of this drug had been given daily for the relief of a colitis and frequent stools when the irritation causing the watery evacuations was induced by a mechanical obstruction of the rectum due to stricture or carcinoma.

Pancreatic calculi

Are rarely found in the intestine, and when present are so small that they do not produce any disturbance except a slight irritation. They may be single or multiple, smooth and round, or faceted and irregular in shape, and are very brittle. They find their way into the intestine usually by ulceration or through the duct.

Urinary calculi

Occasionally find an exit through the rectum, the result of pressure ulceration from a stone in the bladder. The writer once treated a gentleman for rectal stricture caused by a large urinary calculus weighing more than 100grm. In this case the end of the stone projected into the bowel half an inch. It was removed by perineal section, because its attachment to the bladder prevented delivery through the anus. If is not unlikely that this stone would in time have found its way into the rectum if it had not been removed by operation. It is only in exceptional cases where these stones are of sufficient size to cause intestinal obstruction.

Coproliths (fecoliths or fecal calculi)

Are distinguished from fecal tumore known as impacted feces by their smaller size and stony hardness. Usually they are ovoid in shape when single, or faceted and fit perfectly the one with the other when multiple. On two occasions the writer has removed them in the form of scales. They were slightly soluble in water, produced a stony sound when dropped upon a hard floor, and were composed of the residue of food, together with earthy or chalky matter.

Prostatic calculi

According to some writers, are said to occasionally find their way into the lower bowel through an ulcerative process. It is questionable if this really occurs. Even if they should no serious annoyance would follow because of their diminutive size. Miscellaneous Concretions: Concretions of variable size and shape, composed of fruit and berry seeds encased in a coating of fecal matter, are of common

occurrence, especially during the summer months when fruit is plentiful.

Such accumulations occur more frequently in children than in adults, and boys are the ones who suffer the most. The writer has on several occasions removed from the rectum and sigmoid enormous quantities of blackberry seeds, persimmon-, cherry-, and plum-stones, causing partial or complete obstruction. Sometimes pins, fish-bones, coins, or other foreign bodies which have been swallowed find their way into the intestine and act as a nucleus around which large, hard fecal tumors form.

Symptoms

The manifestations produced by intestinal calculi and concretions are varied, depending upon many things. The size, number, and shape of the offending bodies must be taken into consideration; also the length of time since they made their presence known, and, further still, the amount of occlusion produced by them. When small and single, and sometimes when multiple and massed together, they are evacuated without pain or other serious disturbance. Enteroliths having sharp and irregular surfaces are particularly apt to lodge at some point in the intestine and produce occlusion because they become a local irritant, resulting in inflammation and prolonged contraction of the muscular coat of the bowel.

The obstruction is likely to occur where the bowel is narrowed by a stricture or tumor, is bound down by adhesions from without, and where it is inflamed from whatever cause. Usually a foreign body as large as the calibre of the small bowel will safely pass through the intestine when there is no change in the gut wall (Senn). It is a well-known fact, however, that small concretions sometimes produce obstruction, while at other times much larger bodies are evacuated with ease.

Enteroliths which become encysted or lodged in a fold of the bowel rarely produce symptoms of acute obstruction, but do cause colicky pains, diarrhoea, constipation, inflammation, retention of gases, ulceration, and

occasionally the discharge of pus, blood, and mucus. The date of entrance of gallstones into the intestine is generally marked by a coincident hemorrhage. The symptoms induced by obstruction from intestinal calculi do not differ from those produced by occlusion from other causes, with the possible exception that vomiting begins earlier.

When they cause complete occlusion, sooner or later we get the following manifestations if the disease is allowed an uninterrupted course:

a) Obstipation.
b) Violent abdominal pains.
c) Local tenderness.
d) Vomiting of the gastric contents, bile, and, finally, fecal matter.
e) Tympanites, local or general.
f) Pulse fast and thread-like,
g) Variable temperature.
h) Cold perspiration,
i) Facial expression of anguish,
j) Rupture of the intestine,
k) Peritonitis.
l) Collapse and death.

When the obstruction is located in the rectum local pain, hemorrhage, straining, and sensations of weight and fullness in the lower bowel may be added to the symptoms just named.

Diagnosis

Many times it is impossible to differentiate between an obstruction caused by an intestinal concretion and a similar condition from other causes.

> *"In cases of acute intestinal occlusion in elderly persons where there is an absence of definite signs pointing to some other ailment, the presence of an enterolith or gallstones should be suspected." - Dennis*

In children it is important to find out what they have been eating to determine if a collection of fruit stones is causing the trouble. Occasionally intestinal calculi can be located by palpating the abdomen. When situated in the sigmoid flexure or rectum the diagnosis is made easy by means of digital examination and the aid of the proctoscope or colonoscope.

Treatment

The measures to be instituted for the relief of disturbances arising from enteroliths and other forms of intestinal concretions require to be changed from time to time, depending not only upon the manifestations present, but also upon their location. It is a fortunate thing for the patient when they are located in the rectum or sigmoid flexure, because when in this region with the rectal forceps, a good light and a large proctoscope, it is a comparatively easy matter to see and remove them. When situated in the colon and small intestine the treatment becomes more difficult and dangerous. Massage and mild salines are indicated to dislodge them when the obstruction is incomplete; strong purgatives, never.

Sometimes they can be evacuated by means of frequent and copious enemata composed of water, oil, and glycerin. Where there is rigidity of the abdominal muscles, great pain and spasm of the bowel musculature, hot fomentations afford much relief and produce a relaxation of these parts. Palliative measures should be discarded when it becomes evident that the occlusion is complete. Here nothing short of a laparotomy, the opening of the intestine, and removal of the stone will save the patient. Khalofoff has on two occasions success fully extracted enteroliths by making a colotomy. Concretions occasionally become firmly encysted, and extensive dissections and a considerable time are required to deliver them. In order to form some idea as to the most frequent location, the ages at which they occur, and the composition of enteroliths. I have collected 53 cases of intestinal calculi and concretions, including three of my

own.

Of this number 34 were women and 19 men. The number of calculi present in each case varied from one to 38. Thirty-nine had but 1 stone, and 13 two or more. Their ages ranged from 6 to 92 years. Three were under 8; 6, between 4, 10 and 25; 4, between 25 and 40; 13, between 40 and 50; 10, between 50 and 60; 7, between 70 and 80; one, between 80 and 90, and 1 above 90, their average age being 47 and two-third years. The stones were located in every part of the intestine except the duodenum and ascending colon.

The obstruction was in the rectum 34 times; the sigmoid in 5; the descending colon in one; the transverse colon in 2; at the caecum in 3; the ileum in 4, and the jejunum in 4. The most surprising and interesting facts brought out by this analysis are that the calculi occurred 9 times in persons not more than 20 years old, and were located in the rectum more frequently than in all other parts of the intestine, showing that these statistics differ materially from those of other writers." - Dr Samuel G. Grant, MD, LL.D, in "Transactions Medical Society of the State of New York", 1901.

Chapter 31

The Flushing of the Alimentary Canal in Chronic Disease

"If the absorption of poisonous matters from the alimentary canal and defective nutrition are the causes of chronic diseases, wt must commence the treatment of these diseases by striking at the causes. The principles of the "New Method" or the home treatment without medicines, for all of these are, in brief, diet, exercise, and the washing or flushing of the alimentary canal, and massotherapy.

Flushing the alimentary canal is one of the most important principles of treatment and the first to be put in practice. It should be used in all chronic diseases, because in all such there is poor nutrition and a perverted, sluggish action of the stomach and intestines. As has been shown, the direct cause of nearly all the chronic diseases is in the alimentary canal, hence by treating this we strike at the fountain head of all the trouble. If, at the same time that we eradicate the cause of disease, we increase the nutrition of the body by the treatment, we are taking the direct steps toward health.

It would be impossible to exaggerate the importance of flushing or washing part, at least, of the alimentary canal in the treatment of disease. In dyspepsia and constipation of course the advantages of this treatment will be apparent at once. In these diseases there is a slimy, catarrhal condition of the mucus membranes or lining coats of the stomach, accompanied by fermentation of the contents. The slime or catarrh prevents the action of the peptic glands and thus allows fermentation, instead of normal digestion, to take place. Now if this slime can be washed out with the poisonous matters present, there will be an opportunity for new and healthy action. There need be no argument to show

that such treatment, if it can be carried out easily and with safety, is radical, direct and common-sense, and is infinitely better than the use of drugs.

This method of treatment is important and should be used in all the chronic diseases. By it the diseases of the: Nervous System, Skin, Liver, and kidneys are quickly benefited.

The nervous system is soothed by it; the kidneys are stimulated to increased action; the skin becomes clear, and strength and flesh are rapidly increased if emaciation be present. In short, there is no measure so important in increasing the nutrition of every organ of the diseased body as the flushing of the alimentary canal in those parts of it within reach. This measure lies at the foundation of the "New Method" of treatment, and should be resorted to by every one and continued until health is restored. The benefits of the flushings are not due to the cleansing of the canal alone. Indeed we doubt whether this is its principal benefit.

The introduction of hot water (the remedy used) has a direct and powerful effect on the nerves of the stomach, liver and kidneys, and all she organs, stimulating them to vigorous and healthy action. The evidence of this is, the increased appetite which follows the flushing; the increased flow of bile from the liver, where but little, if any, flowed before; the decided increase in the amount of urine eliminated by the kidneys; and the general increase in strength. Now the kidneys, liver and other organs, which are not directly touched by the hot water, must be influenced by the stimulation of their nerve. It is only in this way that the beneficial effects on jaundice of large draughts of hot water, as recommended by the celebrated Dr. Prout, can be accounted for; and also the benefit of large injections of water into the colon for the same trouble, as spoken of by several well known medical writers.

Common sense teaches as reasonable and what experience has abundantly proven, namely, that the flushing of the alimentary canal is a measure of immense importance in the treatment of chronic diseases and in warding oft and

lessening the severity of attacks of many forms of acute diseases, Colds, La Grippe, Pneumonia and all forms of fevers. Frequently when the first symptoms appear a prompt resort to a thorough flushing of the Colon will check all progress of the disease.

In carrying out the flushing of the alimentary canal we have to skip the middle part, as the small intestines, lying between the stomach and the colon, cannot be directly reached. But, indeed, there is no necessity of reaching this directly if only the stomach and colon are kept in order. The small intestine receives at its upper end the bile from the liver. Now the bile is a decided antiferment, and if the stomach and liver can be made to do their work properly, the small intestine will protect itself against undue fermentation and poisonous absorption.

But when we come to the larger intestine or colon, we have a portion of the alimentary canal again within reach, and a part that more than any other needs to be thoroughly cleansed.

The Flushing of the Colon

The flushing of this organ has most important influences on the health. When you consider the course of the colon in the body for an instant you will see what an influence "flushing" may have on all the abdominal organs, stomach, liver, spleen, kidneys, etc. The colon starting from its outlet passes up in front of the left kidney to the spleen, then across the body just beneath and behind the stomach, pancreas and liver, and then down in front of the right kidney. In females it is just behind and in contact with the womb and ovaries. Thus it is in immediate relations with all the important internal organs below the diaphragm. More important than the contact with the organs is its relation to the nerve centres in the abdomen, the centres that preside over nutrition, the great coeliac plexus as it is called. From the above you may see how, if the colon be obstructed, all the important glands may be affected. You can also see how, when we introduce a large quantity of hot water into the

colon, we not only cleanse that, but we stimulate by the heat the function of all the organs and nerve centres in contact with the colon.

It is because of the influence on nutrition that "flushing the colon" is by far the most important curative procedure that can be resorted to in chronic diseases of all kinds, and is a measure that should be used in all, at first, whether constipation be present or not.

When you take drugs to stimulate nutrition and the internal organs, call these drugs what you will, tonics, stimulants, cathartics, regulators, can you hope to do one half as much by these substances, foreign as they are to the system, as common sense shows can be done safely and directly by "flushing the colon" and stomach with hot water. Flushing is not any more "contrary to nature", than is sickness, and it is a most common sense measure to restore "natural" conditions of the body. The following is from an editorial from the N.Y. Medical Record of 26 July 1890. The cases reported show that not only may the milder nervous diseases have their origin in the colon and be relieved by "colon flushing," but even insanity in some cases may be thus cured.

> *"It will be readily admitted that many of the milder affections of the nervous system may be caused by excessive and long-continued accumulation of faeces in the large intestine, or rather by the abnormal state of the system which permits or arises from such an accumulation. Since the discovery of the nature and poisonous influence of ptomaines, and kindred bodies, and of their formation in certain abnormal conditions of the digestive tract, the dangers of accumulation of faecal matters in the large intestine have been more generally understood. That insanity could be due to such a cause could not be admitted without direct proof."*

In the Alienist and Neurologist, January, 1890, Dr. Moyer relates 3 cases in which grave nerve disturbance Seemed to be due to disorder of the colon, with accumulation of faeces in it, and was cured by emptying of this organ.

"Two important suggestions are made: that accumulation of faeces is not disproved by the occurrence of frequent passages; and that treatment should be by large, repeated, high injections (colonic irrigation), purgatives doing only harm." - Dr W. E. Forest, MD in "The New Method in Certain Chronic Diseases", 1897.

The Treatment of Influenza

"The paper by Dr. Goldstein on influenza, lacks in my opinion but one factor, viz., that food should be withheld during the period of the fever, that is in the average case. This, with the full cleansing of the intestinal tract with a purgative, continuing the fast for 2 days, suffices to reduce the fever to near normal in the average uncomplicated case. Many cases of influenza have ill-smelling perspiration, and fetid bowel movements.

These patients are very weak and rapidly lose in weight, it seems to me that here is an important factor, for in these cases food is neither digested nor assimilated. Clinically I could cite many cases in which I believe fasting for 2 or even 3 days, and the complete cleansing of the intestinal tract, did more than any other factors employed in treatment." - Dr. W. Washburn, MD, in "Medical Council", Vol.24, 1919.

Enteroclysis and Colonic Flushing

"In the onward march of medical science simplicity is conspicuous, simple vapour and hot-air baths, tub-baths, cold sponges, and packs supplanting the medicated baths and powerful antipyretics of former years; and if we continue to depend upon Mother Nature, we will come to believe in the 4 great principles laid down by a prominent

New York Physician, namely:

1. Warm Feet
2. Castor-oil
3. Water Inside
4. Water Outside

We can all count back to the days when it was considered dangerous to give fever patients much water to drink; in fact, a large majority of the laity still hold to this principle, and many a nurse finds she shocks the family by keeping a pitcher of water within the patient's reach. Even in health people do not drink enough, and the system cries out for its proper amount of fluid, which they try to supply by tea and coffee instead of pure water.

Cannot we as nurses teach the world better?

A large amount of constipation might be prevented if they would only realize this, drinking between meals stimulates the intestinal glands, aiding secretion, both in stomach and intestines, as well as providing the system with a needed fluid, aiding in the manufacture of blood, and stimulating the kidneys to secretion.

The excellent results of enteroclysis and colonic flushing are becoming more and more recognized by the medical profession. We in the hospitals, where all new methods have their birth, have accepted this treatment as one of the best of the present age, the results in some cases being remarkable.

In haemorrhage from operation, either primary or secondary, the enteroclysis of normal salt solution has proved most beneficial, in fact, from shock from any causes,- and one of its best recommendations for private duty has been that the nurse cannot go astray in giving it, as it is one of those things that can be done while waiting for the doctor, that most anxious of moments for the nurse. In cases of anaemia, pernicious or simple, and in general sepsis, salt solution by rectum, one or 1 litre daily, replenishes the blood and gives a gentle general stimulation.

Enteroclysis of salt solution, given four or 6 times in the 24 hours, makes an admirable heart stimulant. Colonic flushing in nephritis has produced most excellent results. Normal salt solution is generally used, about four quarts, at a temperature of 44 C.

This stimulates the kidneys and overcomes in a great measure the profound toxaemia that often exists in this disease. It may be given as a colonic flushing, distending the colon with the entire amount of the hot fluid, and then syphoning it back, or as a rectal irrigation, allowing the solution to run out immediately.

In typhoid or any high fever an irrigation at a temperature of 18 C assists greatly in reducing the temperature. Colitis is treated to a large extent now with colonic flushing simple salt solution. Some of the most successful results have been from the quinine treatment, as it has a specific action on the amoeba. The irrigation in colitis should be given once or twice daily. When the salt solution or quinine is used it may be given as often as every 4 or 6 hours. Hypodermoclysis, or subcutaneous injection, is coming more and more into favour for shock from any cause or for general stimulation. It is given with a large aspirating needle, about five hundred or one thousand cubic centimetres at a temperature of 41 to 42 C; it is usually given in the breast or abdomen, with children in the buttocks.

In pneumonia or typhoid, given daily when the heart's action is weak or there is much toxaemia, it has proved very beneficial. There is seldom any pain attending it, and of the many cases I have seen treated n this way I have never yet seen an abscess, and where aseptic precautions are taken there is practically no danger.

There is less tendency to chill afterwards than in the venous infusion; this is probably owing to the fact that, being injected into the loose tissues, it is taken up slowly by the blood-vessels and the stimulation is more gradual than when injected directly into the vessel; in that case it reaches the heart, in fact, the entire system, so rapidly that the stimulation is so sudden it is a shock, and produces a revulsion that is manifested by a chill." - Anna A. Davidson,

Graduate of the Presbyterian Hospital, New York City, in "The American Journal of Nursing", 1901.

The Treatment of the Viscera through the Colon

"It was shown that small quantities of hot water 55°C, introduced into the rectum produced a marked effect on the heart and general circulation, and especially on the abdominal organs. From these results it was evident that hot water introduced, at the temperature mentioned, into the colon, had an extremely beneficial effect upon the abdominal viscera. Air, hot or cold, forced through a double tube into the colon and allowed to escape, acts not only as a powerful stimulant to the abdominal viscera, but as a species of pneumatic gymnastics for the colon.

For continuous irrigation, my double recurrent tube, or needle douche, has answered the purpose best in the hands of gastro-enterologists like Herschell, Treves, Gillespie and others. It is indicated in impaction, acute gastro-enteritis, and during the early stages of appendicitis. A strict observance of technique, judiciously varied in each case, gives the best results.

The mucus membrane of the colon, like that of the throat, seems to be insensible to comparatively high temperature. The sensations within the colon, as to heat or cold, are not very definite. This may, in part, be due to the fact that the colon sensation has been so specialized as to fecal pressure as to lose its heat and cold reaction.

That the treatment through. the colon influences not only the general circulation, but also stimulates the actions of the abdominal viscera, and even the cerebral and spinal blood pressure, has long been known.

The principle on which stimulant enemata have been employed in opium coma and allied conditions is significant evidence of this. The ano-genital center is notoriously the last to be affected in coma. Numerous instances have been reported where death from opium coma and anesthesia has

been prevented by stimulation of this center.

Further more, stimulation of the ganglia in the walls of the intestines can not fail to produce effect on the spinal and cerebral centers. The increased action of kidneys, liver and other organs after the employment of colonic irrigation is evidence in this direction. This is furthermore shown by the fact that favourable results depend not upon the amount of water introduced, but upon the reaction between heat and cold. Large quantities of water introduced at one time are detrimental; small quantities, frequently repeated, have markedly beneficial effects.

Dr Homer M. Thomas, Chicago, Ill. — We are indebted for much of our knowledge of the value of colonic lavage to the experiments and observations of Dr. Turck. There is a general agreement at the present time that the existence of saprophytic bacteria in the intestinal tract is largely the cause of appendicitis. We are greatly assisted in our diagnosis of appendicitis by the use of colonic lavage, and if this method is used in the early or suspected cases of appendicitis, we not only unload the bowel of its accumulated bacterial poison, but we make possible a more accurate palpation of the appendix, aiding us in determining to a large extent the condition and amount of inflammation. It goes without saying that any relief of the bowel from its accumulated material will also favourably influence the prognosis of appendicitis. This is a very important subject, and one meriting further investigation.

Dr Thomas J. Shuell, Parnell, Iowa. — I have had Dr. Turck treat several cases of stomach trouble for me, and I was very much surprised to see his methods demonstrated. It gave me a number of new ideas as to the value of stomach and colonic lavage. He referred to my paper on "Nonoperative Appendicitis," which I read at the Iowa Medical Society meeting, and which is now in the hands of the printer for publication.

For many years I was under the impression that I was the originator of the treatment of appendicitis by means of colonic lavage. It has been my practice to give warm colonic flushings every 3 or 4 hours for the first day or two, and

after having used these flushings for from 2 to 4 times the patient experiences a feeling as though something had given way. This means the ejection of the foreign body from the appendix into the cecum. It is impossible to overestimate the beneficial effect of colonic flushings in intestinal diseases, and especially so in appendicitis, and it is well worth every man's while to give this method a fair trail.

Dr Turck – I simply wish to reiterate the object of my experimental work which I have presented to you to-day, and to emphasize the value of the colon as a means of affecting the abdominal viscera. Hot water is one of our most powerful therapeutic agents, and it is not so much the quantity as the temperature which procured the proper reaction. It is detrimental to use large quantities on account of the stretching of the colon, but small quantities at a high temperature should be used, as heat draws out the water from the walls of the bowel, and this increases the original quantity injected. As a temperature of the water is increased, the temperature of the body is correspondingly increased, sometimes as high as two or three degrees.

We reduce this temperature by means of cold water, which acts like heat, that is, it is a vaso-motor stimulant. As fecal matter is the normal stimulant of the bowel, we can by artificial stimulation produce the same peristalsis. By experimenting upon dogs I found that this could be done in most cases by the use of water.

Even small quantities are in some cases detrimental. Where we wish to produce gymnastics of the bowel, I would recommend the use of hot air. In this way we stimulate not only the colon, but also the entire abdominal viscera." - Dr. Fenton B. Turck, MD in "Transactions Mississippi Valley Medical Association", 1899.

"Show me a person who is under par and I will show you a person who has a damaged colon."

The Care of the Bowel

"I have checked with pathologists at teaching centers and they tell me that nearly every adult bowel, at autopsy, will show degenerative changes. If not well developed ulcers or new-growths, then at least, erosions, dilated veins, inflammatory areas exuding mucus or hardening of the epithelial surfaces.

That should not be at all surprising for even the gums of most adults will show degeneration to the unaided eye. If you can not visualize it, take it from me, that hygienic conditions within the bowel are far worse than in the mouth. Constipation, the bane of so many people's existence, is the condition, when the large bowel or colon fails to keep its contents moving along, without accumulating too much or staying too long. To have good elimination one must have good peristalsis. Good peristalsis depends upon the healthy tone of the tissues, the "musculature" of the intestines, and its innervation.

Enemas & Colonic Irrigations

Even I was prejudiced against enemas when starting the practice of medicine. After a few years I tried to find a valid argument for my prejudice. This I could not do, and on final analysis I had to be satisfied with the argument that it did not seem a normal way to empty the bowel.

Since finding out how frequently the bowel has departed from the normal, and if it does not empty itself sufficiently well it is not normal, then it is better to use a method that is not quite normal to empty the bowel than to let it rot further. The idea that water unduly irritates the bowel wall, does not stand up after scientific investigation; nor can the water wash away any necessary secretions from the bowel wall. We do not hesitate to pour water into our stomachs, and our stomach walls are much more delicate than the bowel walls.

Enemas do not promote constipation, although you will frequently hear the statement that they do. When, as is often the case, a bowel is loaded with the residue of 8 or 10 meals,

even with a daily but inadequate evacuation, an enema is given which washes out the residues of those several meals, then the patient will naturally skip a day or two, in fact until enough wastes accumulate, as was its custom, to activate the badly degenerated colon.

In all my experience I have not seen a case where a long series of Enemas or Irrigations failed to improve the bowel activity. It is not simply to empty the colon that I prescribe this type of therapy, but more for its cleansing effect of degenerated and infected areas in the bowel wall, which are. more or less common to all adults; areas through which infection and toxins enter the lymphatics and blood stream, carrying disease to the heart, liver, kidneys, joints and other organs and tissues.

If we clean out the debris in those degenerated areas in the bowel and keep them cleaned out, then we can go about the more important job of healing them. To do this we must, of course, supply the necessary food elements that repair tissues, the deficiency of which caused the degeneration in the first place. In recommending enemas, I do so with the understanding that they must be given properly, with proper temperature, pressure and amount. Enemas and colonic irrigations are defined and specific instructions for their preparation and method of administration are given at the end of the chapter.

The value of Enemas and Colonic Irrigation does not seem to be generally fully appreciated. I have seen many very sick cases in which the washing out of the bowel seemed to bring about the turning point for the better. I have seen patients who were very uncomfortable, restless, and with characteristic toxic appearance, who, within a short time after this type of treatment, become less restless, lose their toxic appearance and fall into comfortable sleep, and upon awaking the next morning be well on their way to recovery.

Enemas are just as rational as brushing the teeth or washing out the mouth and far more essential. Sometime, when we have become largely animal protein and fat eaters, we may be able to get along without the enema; but until

then I am convinced that it is one of the most useful therapeutic measures for health as far as the care of the bowel is concerned.

Role of the Bowel in Back Pain (Due to Inflammation)

A man who possessed a good sense of humour awoke one morning feeling fine, but when he made the move to get up, he was suddenly taken with a severe pain in the lumbar region of the back. It was so severe that his first thought was that his back must be broken. The antics he was making in his effort to get up off the bed caused his wife to laugh at him. Whereupon he declared that his pain was more severe than the pains of childbirth.

That caused his wife, who did not have such a good sense of humour, to be angry at him. Well I know from personal experience that his comparison was not too exaggerated. However he was directed to have a daily enema. He told me later that when he took an enema, he could fairly feel the "pain ooze out of his back."

I have seen many a case of lumbago or low-back pain washed away with enemas and colonic irrigations. If you wake up in the morning with a stiff back, try an enema. It will usually chase the trouble away. In my experience about 85%. of back pains can be relieved by treating the bowel. Many of the so-called "sacro-iliac strains" are in reality arthritis of the sacro-iliac joint and can be relieved by treating the large bowel.

(If they are organic in origin. If functional in origin then they need Osteopathic Manipulation or Chiropractic Adjustment. In some cases they need both hydropathic and adjustment treatments to resolve the condition).

Just as an abscess at the root of a tooth can produce pain along the facial nerve, that is felt more severely near the ear — the point of emergence of the nerve from the skull. This pain may also be referred back along other branches of the facial nerve, producing pain in the forehead; so too an infected pocket in the bowel wall can refer pain back along

its nerve supply to the points of emergence from the spine and reflect it back on other branches to the neighbouring lumbar muscles or joints.

When back pains are on the right side, then colonic irrigations will give much quicker results than enemas.

This leads to the assumption that the right sided pains are due to a lesion in the right half of the colon (cases in which we have been able to check have shown this to be true). A colonic irrigation reaches the right half of the colon much more efficiently and in greater volume than an enema. An enema would have to traverse the left half of the colon before reaching the right half, and because of the greater volume of water used in a colonic, much more of it would reach the right colon than is the case with the enema.

In Heart Conditions

It seems that washing out the bowel is too often overlooked as a therapeutic measure in many heart conditions. The turning point for the better in so many bad heart diseases has synchronized so frequently with this type of treatment, that it confirms my opinion that a lesion in the bowel wall often underlies heart conditions.

Washing of the bowel, in my experience, is the pre-eminent treatment for skipping heart beat.

Resort to nearly all the heart remedies in the pharmacopoeia for this condition resulted in little success until I started using Enemas or Colonic Irrigations. Since then I have seen hundreds of cases in which skipping heart-beat and extra-systole have been so cleared up. One rather pert woman came to me with a skipping heart and when I directed her to have a series of Colonic Irrigations, she said:

> *"But, Doctor, my trouble is in my heart not in my bowel."*

I replied:

> *"Yes madam, I understand. But my experience tells me,*

that the interference, in the nerve impulses that make your heart beat, is located in the bowel wall."

She left rather skeptical as to results, however she took the series of irrigations. The next time I saw her, she radiantly announced, that the treatment produced the desired results. She had no more skipped beats.

In sleeplessness

Another fact that is not generally appreciated, is the efficiency of enemas in the control of sleeplessness. I have been using it for this condition for many years now and with much success. My prize story on this subject was related in a previous volume. It was about the man who required five sleeping tablets to give him a comfortable night's rest, and who found out he could sleep just as well without any sleeping tablets, if he took an enema. You may be sure that sleeplessness is a danger signal, and sleeping tablets do not remove that danger. Enemas do seem to remove some of the danger, at least temporarily. It requires proper food habits to make it permanent.

In Pyelitis
(Inflammation of the Renal Pelvis)

Lesions in the rectum or sigmoid flexure of the colon are treated very well by the enema, but when the lesion is farther along in the bowel, especially in the right side, then colonic irrigations are by far the more efficient. Some years ago a case of pyelitis, with pain on the right side of back and much pus in the urine, was treated with enemas without much result, but when colonic irrigations were instituted the relief was almost instant, temperature dropped and pain subsided.

Since then in such cases I resort to irrigations immediately and without disappointment. My experience in pyelitis makes me feel that in this condition there is an active lesion in the bowel wall, from which infection is picked up through the lymphatic channels and is strained out of the lymphatics

by the lymphatic glands at the base of the kidneys, which swell up and infect the neighboring pylum or funnel of the kidney, and then the pus drains down to the bladder. Colonics are often successful when enemas fail, particularly in cases of pyelitis or where there is a diverticulum in the colon or a deep ulcer, and it is necessary to dislodge an infective mass.

In Mental Conditions

It has always been considered good therapy in treating mental diseases to keep the bowel active. Here again the bowel washing has been of much value. I have seen several cases of acute psychosis clear up promptly after a colonic irrigation or a series of irrigations. These irrigations undoubtedly dislodged toxic plugs from the colon wall. This is the ideal way to care for the bowel. If you keep your bowel in repair, and functioning normally, half the battle for health is won." - Dr Daniel Colin Munro, MD in "You can live longer than you think", 1948.

Chapter 32

Colon Irrigation

"A knowledge of the indications for, the technique, the dangers and the value of syringing the vagina, uterus and colon is of great importance because it is necessary not only for the success of every general practitioner, but also for the lives of the patients. The following about uterine and vaginal douching will apply especially to obstetrics and operative gynecology, that about Colon Irrigation to the whole domain of medicine and surgery.

Indications:

1. Constipation from any cause. An enema 2 to 3 times a week.

2. Cases where the bowels need to be emptied immediately, i.e., without having to wait for a cathartic to act, e. g., colic, intestinal obstruction, sick headache due to a deranged stomach, septic infection, onset of all acute fevers and inflammations, especially peritonitis. An enema every two to four hours until effectual. In cases of faecal impaction, use as hot water as can be borne along with strong soap-suds.

3. Diarrhoea and dysentery. Repeat 1 to 3 times a day, using cool or cold water as the patient prefers.

4. Chronic stomach trouble, consumption, anaemia, etc. Use as directed for constipation.

5. Kidney disease. Use as for constipation. I have had patients tell me that after taking the regular colon irrigation it seemed as if they passed more water from the bladder than they did from the bowels.

6. Uterine disease, especially that of girls. A hot rectal douche may be used once a day in place of the vaginal douche.

7. Hemorrhoids: Use as for constipation, but use only cool or cold water, containing a drachm of fl. ext. hamamelis.

8. In fact all forms of disease are benefited by colon flushing. I would suggest its use in skin diseases, as they are generally due to indigestion or lack of assimilation.

Technique

Patient in the Sims position, hips a little higher than the head, a 4 quart fountain syringe filled with luke warm water containing a teaspoonful of salt. Allow the patient to pass the lubricated rectal tube herself. Tell her that if she bears down as if she wished her bowels to move she can insert it much easier. Hold the bag about a foot or two above the patient's hips and let the water run. Stop the water, or lower the bag a little whenever the flow causes pain. As soon as the pain disappears start the water again and so on until nearly all the water is out of the bag. Tell the patient to retain the water about ten minutes if she can do so conveniently. In some cases more force is required; then the bag has to be raised from 2 to 6 feet.

Soap-suds should only be used when the salt and water fail to act, and then, never in haemorrhoids or diarrhoea or dysentery. A bulb syringe is almost useless as it takes so much time and on account of the unevenness of the flow causes much more pain and towards the last almost always air enters the bowels, which causes still more pain. Pain during the injection can be greatly relieved by deep breathing. Pain in the left iliac fossa indicates the passage or at tempted passage of water through the sigmoid flexure. Pain in the right iliac fossa indicates the same in regard to the ilio-cascal valve. In animals colored water has been made to pass out of the mouth when injected per rectum. After the bowels move, from a large injection, there is often a strong desire to eat.

Danger

1. Rupture of the gut. Probably theoretical, although it is possible if the injection was not administered carefully.

2. Injury to the mucous membrane probably from the use

of hot water which would cause desquamation to occur.

3. Weakening of the patient. This is present more often from mental effort than anything else, but it may be real with the first three or four injections, or if the injections are repeated too often. This would be much less if the patient would eat a short time after the evacuation.

4. Constipation is caused theoretically, but practice does not demonstrate it. It may be caused if the injections are used too close together. Colon flushing should not be blamed when the patient was previously constipated.

Value

Of great aid in all indications mentioned, and often effects a cure in many of these." - Dr T. M. Burns, MD, Instructor in Obstetrics and Clinical Midwifery at the Gross Medical College, in "The Denver Medical Times", 1894.

Rectal Irrigation in Gynecology

"The theory of rectal irrigation in itself admits of no new view, but its recent employment by specialists marks a distinct advance in routine methods, and furnishes a valuable acquisition to local therapeutic and mechanical measures in gynaecological practice, both before and after operative procedures. No apparatus yet devised for this specific purpose so scientifically meets the requirements as Kemp's tube, introduced to the profession some two years ago.

Rectal irrigation will never supersede vaginal douching, nor is it intended to. But as a substitute in selective cases, it is sure to occupy a prominent position in our modern armamentarium. Those interested in female complaints will hardly evince a hasty desire to discard vaginal douching entirely in preference to rectal, having become too firmly convinced of its equal value when properly administered as taught by Sims and Emmet. The ideas herein advanced are not to be conceived as an at tempt to advocate the superiority of rectal over vaginal irrigation, but to demonstrate that in certain types of ailments the former

does surpass the latter. Attention was first directed to this novel technic while interne in the Woman's Hospital.

At that time it was customary for nearly all ward patients to receive rectal irrigation, especially those evidencing retroversions, pelvic exudates, tubal and ovarian lesions in all stages, and also constipation. On questioning both patients and nurses as to the immediate effects observed. Positive opinions were received as to its superior action. Since then. on every possible occasion, rectal irrigation is prescribed, an extended personal experience convinces me of its reliability and allows me to unhesitatingly subscribe to its value.

It is interesting here to note in what manner rectal irrigation effects its particular action. When we recall how clearly defined the uterus and its appendages appear during a bimanual rectal examination, and how intimately the genital and rectal circulations anastomose, a clearer conception is gained of the more constringing effect of a prolonged rectal over vaginal irrigation. By the ballooning of the entire rectum with the hot fluid, a larger vascular area is directly presented to the heated medium, and its ultimate effect on the vessels is greatly in creased.

In vaginal douching, the introduction of the tube is necessarily limited by the vaginal vault, which allows the fluid to come into contact only with the vaginal walls and the portio, and affording no such excellent opportunity to be brought into almost immediate proximity to adnexa and the whole posterior surface of the corpus uteri, as in rectal. This statement will readily be acknowledged by all familiar with pelvic anatomy. Clearly, then, rectal irrigation permits these viscera and their abundant vascular supply indirectly to be more fully bathed by the hot water than in vaginal.

In addition, by its retroactive effect on the intestines themselves, there is promoted through the sympathetic system, a stimulation of the unstriped muscular fibers in their walls, which not only increases peristaltic action, but seems to act reflexly even on the cardiac muscle, as noted in the use of this form of irrigation in counteracting shock. This fact is noticeably apparent by a comparison of the quality

and tension of the pulse before and after irrigation. Part of this cardiac stimulation may be due to absorption of the saline and its filling of the vessels. The heart thus receives more fluid, and necessarily its action must be spurred on in its endeavours to compensate for this increased fluid. The employment of rectal irrigation is not the administration of an enema, and in private practice it is policy to make this point clear to the patient at the outset.

Technique

As regards technique, a few minor but important details are essential. It is preferable to use the largest sized tube, and, prior to using, thoroughly anneal to diminish its brittleness. Insert into the rectum as an ordinary rectal-tube, using no unnecessary force. Sphincteric spasm is best overcome by absence of haste and a slight effort on the patient's part to bear down as in defaecation. Either Sims or the dorsal decubitus may be elected.

At least 2 gallons, preferably 6 to 8, 38° C., give best results. Negative effects arise from the use of too small a quantity of water and not of a sufficiently high temperature.

Care only is necessary to obviate any tissue destruction. One expert in the use of rectal irrigation can employ it without even soiling the bed's or the patient's linen, but at first trial it is advisable to spread a rubber sheet under the hips or use the dorsal position with patient on a douche-pan. The vesical tenesmus, which at times supervenes, seems best relieved by suppositories of iodoform, conium, and belladonna, which also tend to quiet any rectal irritation which may persist.

As to the cases in which rectal irrigation is applicable, considerable limitation is allowable. One who makes a specialty of employing this form of hydrotherapy soon finds himself supplementing his prescribed treatment of all pelvic affections with rectal irrigation in addition to other palliative measures. Experience and judgment are the criterion, when to use or not. The different types of gynaecological cases where rectal irrigation has proved serviceable, and also

those in which it furnishes the most instructive results. In virgins with rigid hymen or small introitus, who present one of those typical histories of leucorrhoea following a prior, and, perhaps, obscure, attack of localized peritonitis (due either to a previous exanthematous attack, bathing or other exposure during menses, with succeeding temporary suppression), when the effect of a vaginal douche is required, rectal irrigation is par excellence the ideal method of depleting the pelvic circulation.

Especially is this true in the leucorrhoeas of retroversions or other displacements, and in ovarian congestions. There is, after all, a natural hesitancy in demanding that young girls should be forced to employ a vaginal douche, especially if prolonged, which it needs must be to produce its effect. Rectal irrigation not only acts as an efficient substitute, but it obviates any relaxation of hymen, and also precludes the enervating effect of a prolonged hot douche in a young unmarried female. Instances are not rare in which these prolonged douches have not only induced nausea, but even syncope.

Gynaecologists are not yet agreed as to the advisability of prescribing prolonged douches in every instance, especially if there is not abundant leucorrhoea. A large quantity of water is necessary to produce the desired vascular constriction, and a small quantity will not exert such a benefit. It is also a well-known fact that prolonged douching lessens the normal vaginal acidity, which is Nature's barrier to the entrance of pathogenic organisms, with the possible exception of the gonococcus of Neisser and the bacillus tuberculosis. To this end have lactic—acid douches been recently advocated by Ilkewitsch and Dalché.

Advocates of rectal irrigation can advance a step further, avoiding vaginal douches entirely in young, unmarried girls, and yet accomplishing the same ultimate effect. I do not decry vaginal douching, for there are times when it is imperativer needed, for cleansing if nothing else, but in the class of cases just mentioned, rectal certainly equals vaginal irrigation, and the girl is not subjected to a prolonged douche. There is too much indiscriminate douching in

young girls, and many physicians have slight consideration in ordering 6 to 8 quarts of hot water to counteract the leucorrhoea of some pelvic ailment.

Such conclusions advanced before the Woman's Hospital Society may appear heretical, but clinical and personal experience proves the right to formulate these seemingly arbitrary opinions. It is my firm belief that the limitation of vaginal douching is not quite fully mastered by all, or, if so, that, carelessly, physicians do not discriminate between its restriction and necessary use. Some of the most striking examples of the efficacy of Rectal Irrigation occurred during my internship in the Woman's Hospital.

The following case is narrated in detail as it was one of many under observation:

Case 1: Mrs. C., age 40; vaginal hysterectomy, with considerable haemorrhage and shock succeeding operation, followed two days later with complete intestinal paralysis and evidence of sepsis. Extreme tympanites, pulse 160, weak and wiry, temperature 104.2°, and patient rapidly becoming moribund. Repeated enemas and free use of carthartics of no avail. Prognosis grave and recovery regarded doubtful. To my knowledge rectal irrigation had never been employed previously in any such case in this hospital. Six gallons given, 38° C.

The intestines, which before had refused to react to any stimulation and expel their contents and gas, now feebly responded after the second gallon, and strongly during the remainder of the irrigation. Large quantities of gas were voided, the patient became less restless, and the temperature and pulse fell perceptibly in a short period of time. Her condition was almost immediately improved, and she made an uneventful recovery.

The irrigation was continued at intervals for the following few days. It was the general consensus of opinion that there had been a localized septic peritonitis, sufficient to induce intestinal paralysis. Certainly the outcome was nothing short of remarkable, and occasioned at the time some considerable

interest among the staff. Within a few days there was again furnished another opportunity to demonstrate the absolute and relative value of rectal irrigation in a case of vaginal section for double pyosalpinx.

Case 2: Mrs. M., age 33, panhysterectomy. Severe haemorrhage during the operation compelled the use of a large number of clamps, which were undoubtedly the origin of the infection which later supervened. The patient's condition was almost identical with that of the first. After removal of the clamps in 30 hours, rectal irrigation proved successful in warding off the development of an undoubted fulminating septic peritonitis, so suddenly did the symptoms present themselves after operation.

The Value of Rectal Irrigation

From that time, rectal irrigation became a universal panacea in the hospital, and was resorted to on every possible opportunity by the internes. It is not to be inferred that every case of intestinal paralysis or septic peritonitis will recover, though the cases reported are not the only instances in which a fatal ending has been avoided.

Rectal irrigation can, however, recommend itself, even as a dernier ressort. Its value is again forcibly demonstrated in shock following operation, using normal saline as the agent. I speak now of shock accompanying severe major operations, with no evidence of hemorrhage. Hanks strongly advises this, and reports excellent results.

Even in secondary hemorrhage, after the bleeding-point has been secured, its efficacy cannot be denied. Under such conditions and cognizant of the absorptive power of the rectum so far as saline is concerned, we note in addition to increase of bodily fluids, a secondary stimulating effect on the heart as previously mentioned. However, intra—cellular or intra-venous infusions are more popular in emergencies.

Every gynaecologist has had the irritating experience of post operative patients complaining of pelvic distress, dull and aching in character or annoyed by the slight tympanites

which occasions the convalescent so much discomfort. I confidently assert that the use of rectal irrigation in such conditions will produce in the patient a fuller sense of relief and more permanent in action than any known drug or form of enema.

This can be well illustrated in a recent abdominal section in which this pelvic distress yielded quickly to the use of the Kemp tube. The annoying sequelae obtaining during the first few days disappear readily under this form of irrigation. An interesting private case of intestinal colic is recalled, supposedly due to the presence of adhesions, with unremitting nausea, pain, and restlessness.

All the much-lauded specifics absolutely failed, and enemas resulted negatively. Rectal Irrigation afforded most marked relief, controlling the nausea and decreasing the pain as to occasion patient little suffering. Its action on the adhesions, if any, is, to me, unexplained. The prevalence of chronic constipation in the majority of women afflicted with their peculiar diseases, is so common as to call for more than routine methods.

Perseverance only causes an amelioration of such a condition and often-times the physician is unable to trace the aetiological factor of this obstinate symptom. Rectal specialists, especially Mathews of Louisville, have devoted entire chapters in their writings to the careful consideration of this ailment. The latest addition to our present array of remedies seems to be Rectal Irrigation, through the complete stimulation of the entire lower alimentary tract, and the subsequent addition of tone to its mucosa.

Is tenable and justified by the apparent improvement of many of the Woman's Hospital patients. The deduction may be assumed that rectal irrigation is not the ideal remedy in acute suppurative processes, but rather is its field in acute and chronic catarrhal inflammations and congestions, which it relieves through depletion of the intimate vascular anastomosis with the rectal vessels.

Rectal Irrigation has been found to have a distinct value in:

1. Leucorrhoeas (thick yellowish vaginal discharge).
2. As a substitute for vaginal douching in young girls.
3. Acute and chronic ovarian and tubal lesions.
4. Intestinal paralysis following sepsis.
5. After major pelvic operations to relieve any abdominal discomfort or tympanites.
6. Intestinal colic.

There is a distinct trend towards individualizing one's own particular line of treatment, and essaying to maintain an independent position. Established ideas are rarely rejected in preference to innovations, unless the latter are qualified to merit careful attention. Of these, rectal irrigation commends itself to gynaecologists for thoughtful and unprejudiced consideration, as having seldom failed to meet the test on fair trial." - Dr Clarence Reginald Hyde, MD, Assistant Surgeon (Gynaecological Dept.), Williamsburgh, N.Y., Woman's Hospital Society, Gynaecologist Polhemus Memorial Clinic in "The American Gynaecologist", Vol.15, 1899.

Vaginal Candidiasis and the Role of the Digestive Tract As a Source of Infection

"Candida albicans is the most common actual or potential pathogen present in the female genital tract at the present time. Vaginal candidiasis is not, a serious condition it can cause an immense amount of distress, and on occasion, balanoposthitis in the male partner. The intestinal tract is the most important reservoir of infection in vaginal candidiasis.

The incidence of yeasts in the mouth, ano-rectal and genital tracts of 84 patients with yeasts present in the genital tract, 60 (71.4%) were harbouring yeasts in the ano-rectal tract; of remaining 216 patients, 56 (25.9%) harboured Candida albicans, C. parapsilosis, or C. tropicalis in the ano-

rectal tract. Of 116 patients harbouring yeasts in ano-rectal tract, 60 (51.7%) were harbouring yeasts in genital tract; of 184 patients not harbouring yeasts in ano-rectal tract, 24 (13.0%) had C. albicans or C. parapsilosis present in genital tract. C. albicans can colonize much of digestive tract but it is most prevalent in mouth and rectum and least in jejunum.

Is the intestinal tract then an important source of vaginal infection with Candida albicans?

Our observations suggest that (71.4%) of patients with vaginal infection are harbouring the same species in ano-rectal tract. Findings indicate that presence of yeasts in the genital tract is often associated with their presence in the digestive tract.

This lends support to those who advocate treatment of the intestinal tract in patients with chronic symptomatic vulvovaginitis." - A. L. Hilton, D. W. Warnock in "British Journal of Obstetrics and Gynaecology", Vol. 82, November 1975.

The Enema: Its Place in the Treatment of Gastro-Intestinal Diseases

"There is so much that is forgotten about the value of the enema. It is a method that is always handy and within your reach in any house hold. Given properly it is absolutely without danger or bad after effects, and will never interfere with any other treatment of the patient. It is prompt and positive in its results.

Its indications are found right along in daily practice from the restlessness of the baby as a result of an over-filled bowel to the saving of a life in cholera infantum or shock.

This paper might have been labeled Intra-Colonic Hydrotherapy, because I want to call your attention to the use of the enema in its several forms. It is limited, however, to the indications for the enema in the treatment of gastro-intestinal disease, but I hope the reader will also see its value

in the treatment of affections of the heart, liver arid kidney. I shall submit a few facts about the varieties of enemas and the indications of each, what they should contain and a word about the technic of administration.

Simple Enema

The simple enema such as is so commonly used to unload the bowel. For this purpose any form of syringe may be used and the water should be 35 C. to 38° C. This temperature causes the least reaction and peristalsis. One quart of water should be the maximum and where we wish to stimulate peristalsis one-half pint of cold water is better than a large warm enema.

To increase the effect of the enema a teaspoonful of salt, molasses or soap may be added or ½ ounce of oil of turpentine. Any of these added to the enema irritate the mucous membrane, remove the mucus from the bowel and soften the faecal masses and thus aid a prompt evacuation. In atony of the bowel when a large part of the enema is retained instead of being voided the colon may be stimulated to contraction by applying a cold towel to the abdomen and low er back.

Cold Enema

By the cold enema is meant one with a temperature of 21° C. This much neglected enema should replace the simple tepid one very frequently, because the cold water stimulates the bowel so much more powerfully that a much smaller quantity of fluid will serve our purpose.

One-half pint of cold enema will unload the colon just as well as a quart of tepid water and by stimulating the muscle wall leaves the sigmoid and rectum in a contracted and anemic condition instead of a relaxed and congested one. The cold enema by stimulating the intestines removes quantities of decomposing matter and toxins and increases the portal circulation. The reaction following the cold enema also produces a flow of fluid toward the intestine. In cases of

chronic constipation or where hemorrhoids complicate the injection of one pint of cold water each day acts very well.

The cold enema is also a very valuable means of reducing the temperature in fevers and in typhoid fever an excellent means of stimulating the liver and kidneys besides cleaning out the colon. The water is introduced through the rectal tube and should be injected slowly, the reservoir being about one foot above the patient's pelvis, and then slowly let out through the tube and another quantity of cold water run in. It is well in some cases to begin the treatment with the first 250ml of the enema at 32° C. and then gradually but rapidly reduce the temperature of the rest to 21° C. This helps the bowel to tolerate the enema and prevents its premature expulsion.

Hot Enema

The hot enema or irrigation is used in the treatment of inflammation of the pelvis. It increases the blood pressure and accelerates the heart action and stimulates the kidneys. The action on the kidneys and heart require a temperature of 41° C. An enema of 38° C. is of no use for this purpose. Following the hot enema it will often be noted that the patient voids a large quantity of clear urine. Dr Kellogg places the hot enema superior to any diruretic drug in the treatment of suppression of the urine and Cantani and Wonte claim good results in the treatment of colic and infantile diarrhea.

The Coloclyster

The purpose of the coloclyster is to introduce a large amount of liquid without ever distending the bowel. With the patient on his back not over 1.5 litre can be passed into the colon safely, but in the knee chest or Sims position 3 litres or 3.5 litres may be injected without inconvenience. This is especially valuable in the treatment of pseudo membraneous colitis, catarrh of the caecum, atonic and chronic dilatation of the colon when they complicate neuresthenia, autointoxication and in collapse and shock.

Rectal Irrigation

The chief advantages of irrigation over the enema is that a flushing may be given the parts. The first water introduced may be about the body heat and the later rapidly heated or cooled as required to obtain the therapeutic results without causing sudden shock to the surrounding tissues.

Hot irrigation of the rectum and sigmoid is useful in inflammation of these structures or surrounding tissues, in rectal ulcer, spasm of the sphincter and in some gynecological affections. The water should be 38° C. Normal salt solution (salt one drachm to water one quart) is better than plain water to relieve local irritation.

Indications for Colonic Lavage

I wish now to give you a brief outline of the therapy of colonic lavage in the treatment of a few intestinal disturbances to show the indications for the different forms.

1. Cholera Infantum and Cholera Morbus

In the treatment of these diseases a hot enema (38°C.) may be given after each stool to remove the irritating and infectious material from the colon and reduce the frequency of the stools. Where there is a great deal of gripping pain 2 to 4 drops of laudanum may be given in 2 drachms of water. To reduce the fever give a cold enema as outlined above. For collapse give a large warm coloclyster at 38°C. and have it retained.

2. Colic

When the pain in the bowels is not due to inflammation but rather to pent up intestinal gases or to enteralgia the hot rectal irrigation gives good results. Also in overitis and salpingitis. If the rectal irrigation is not convenient, give the hot enema. 500ml or 1 litre of hot water is injected into the

sigmoid and colon and retained for 5 minutes. It is then expelled and more injected. This is repeated 3 to 6 times. The whole treatment may be repeated 2 or 3 times each day.

The patient rests on her back to prevent the water passing high up in the bowel. With the rectal irrigator the hot solution flows out continuously as it enters. It does not distend the tissues but bathes all of the parts with the same temperature during the whole treatment. It is, of course, much more convenient for the patient and physician.

3. Colitis

To cleanse the bowel we use a quart of water at 38°C. containing ½ drachm of sodium bicarbonate and sodium chloride and flush out the colon twice daily. After each bowel movement give a simple enema at 38°C. To relieve the pain and inflammation we give a cold enema at 25°C. to be retained 5 or 10 minutes or a cold rectal irrigation. This procedure may be repeated hourly if needed. The cold enema or rectal irrigation or even the cold anal douche acts very nicely in treating prolapsed and irreducible haemorrhoids.

4. Chronic Diarrhoea

To lessen the congestion and stop the mucous stools give an enema at 98° F. and follow it with a tonic enema of 250ml of cold water to be retained. To reduce the bacterial growth give one or two large hot coloclysters each day and follow with a small coloclyster of 500ml containing gallic or tannic acid one drachm. For the pain in the abdomen give a hot enema at 38°C. after each stool. For the alternate constipation and diarrhea give a large warm simple or soap coloclyster at 38°C. twice a week and follow with one pint of cold enema. The general treatment consists in toning up the general digestion by regulating the diet and by means of the enema remove the masses of faeces and mucous and hords of bacteria and with the small enemas containing gallic or tannic acid destroy the retained germs.

5. Peritonitis

In the treatment of peritonitis the large coloclysters at 25°C. Given three times daily assists very much in preventing obstruction and if there is added one drachm of turpentine it helps to evacuate the gas and relieve the tympanitis.

6. Constipation

In the treatment of constipation, the enema serves a great many different purposes, but it must be judiciously employed or it may cause more damage than good. Where t he constipation is due to atony of the bowel, due to loss of nerve sensibility, the hot enema at 38° C. for 15 seconds followed by the cold enema at 25° C. for 15 seconds twice a day after breakfast and at night accomplishes a great deal, or we may use the rectal irrigation.

To increase the peristalsis, the cold enema and the graduated enema by which the bowel is stimulated on a gradually lessening enema is of much use. We should always avoid completely emptying the colon and also use a small cold enema instead of a large quantity of warm water except when needed to relieve autointoxication or to remove hardened or impacted faeces. To remove faecal masses the hot coloclyster or enema of soap, oil should be used. The enema may have to be repeated several times and should be given every hour until the bowel is thoroughly cleansed and then given 500ml of cold water at 25°C. to tone the bowel. The habit of the warm enema must be avoided, and it is well to make it a rule to give a small cold enema afterwards to tone up the bowel.

7. Typhoid Fever

The treatment of typhoid fever presents many indications for the enema, usually in more than one form and yet, I think it is many times forgotten. For the diarrhoea give a hot

enema of 500ml or 1 litre and after it is voided follow with a cold enema of 500ml. For the constipation which sometimes displaces the diarrhea and for tympanitis and meningitis give a copious coloclyster at 35°C. twice daily and you may add a piece of yellow soap the size of a peach stone or one drachm of turpentine. For the high temperature or delirium give a cold enema at 22°C. to be retained 15 minutes and repeat every 3 hours until the temperature reaches 38°C.

But with high temperature and a cold skin we have a different condition and we want the stimulating properties of a hot enema and the cold friction rub to the skin. For intestinal hemorrhage give a rectal irrigation with ice water and 2 days after the hemorrhage has ceased give a cleansing coloclyster at 38° C. to remove decomposing blood clots from the bowel. Gastric irritation calls for the withdrawal of food by the mouth and the giving of nutrient enemas." - Dr Charles J. Drueck, MD, in "The Medical Standard", Vol.32, 1909.

Chapter 33

Some Observations of Practical Interest on Colonic Lavage

"The uses of this important therapeutic measure have been not only overlooked, but neglected to a certain extent, by the profession in general.

The reasons for this:

1. The objection on the part of the patient.
2. The objection on the part of the physician.
3. The want of the facilities for the proper administration.

All of these play an important role:

I. In the 1st the patient objects to the trouble in taking it, if done at home, and to the exposure, especially if the patient is a woman, if it is given by the physician. The exposure should not be considered under any circumstances, as there is in reality practically none.

II. In the 2nd, it must be admitted that the physician experiences some disagreeable features in the giving of colonic lavage, aside from the time occupied in administration, which is from 15 to 25 minutes, not including the time necessary for preparation.

III. The 3rd is probably the most important of all, as it is an almost absolute necessity to have the certain facilities for its proper administration. If taken at home by the patient, we have no assurances that the patient is following accurately our direction. If given at home by the physician, he is handicapped by the want of the necessary conveniences.

Colonic Lavage, is a Washing Out of the Colon

The technique is simple. One of the three important positions is utilized at the discretion of the operator. Boas advocates placing of the patient on the side with the hips elevated. Others use with good success, in certain condition, the knee chest position. For my own use I prefer the dorsal position in nearly all cases. I find it the best. The patient should be placed upon a table especially prepared for elevating the hips. The body lies on the back with the hips elevated at an angle, approximately of 45 or 50 degrees. The stirrups in which the feet rest are also raised with the end of the table, thereby giving the patient as comfortable a position as possible.

The water which has been previously prepared is now allowed to flow into the bowel. The temperature of the water varies with the case. It may range from ice water to a temperature of 38°C. Hotter than this it is not well to use in the bowel. Hot and cold water may also be used alternately. The amount of water allowed to flow into the bowel depends upon the temperature. At an ordinary temperature anywhere from 1 litre to 4 litres can be passed in, but large amounts in most cases are unnecessary. The giving of lavage, with the water at a high temperature, from 38° to 40°C., calls for an entirely different procedure, as the patient is unable to retain a large amount. Then the nozzle is disconnected and the water allowed to siphon out.

This procedure is repeated any number of times over a duration of 10 to 25 minutes. The patient is generally the best judge of the amount of water to let in at any one time, but should you for any reason desire more, let the patient breathe deeply. Some authors advise the use of hot and cold water alternately. I personally prefer the continued use of the hot water in nearly all cases, especially chronic catarrhal and atonic conditions. If necessary the treatment can end by douching the bowel with cold water.

This acts as a stimulant to the patient if the heart shows any sign of weakness. As it is out of the question to have the patient personally use the method just described, it may be

necessary to occasionally resort to the other methods.

However, I do not like them in chronic cases for the following reasons:

1. The bowel is stimulated by the weight and bulk of water present and not, as in the latter method, by the heat.

2. The temperature of the water is necessarily much lower, as it is almost impossible to inject a large quantity at a high degree, and as a result the stimulation is not so marked.

3. The amount of water generally used has a tendency to over distend the bowel, and if continued for any length of time is liable to cause a paretic condition of the bowel.

4. Probably the most serious objection is that when large enemas are once begun, the bowel soon depends upon them, which is not the case with small hot injections often repeated.

For cleansing the bowel on one or two occasions the large enemas are suitable and no objections can be offered to their use. A small injection be given first, then gradually increased until a large amount can be given.

Local Effect

The local effect of an injection depends upon the temperature of the water. A moderate temperature will cause a relaxed condition of the bowel wall. A cold injection causes stimulation, but is also liable to cause pain. A temperature from 27° to 43°C. will cause a mild stimulation with slight hyperemia.

From 35° to 40°C. there is:

1. Considerable hyperemia of the mucous membrane.
2. An increase in the secretions.
3. It has a markedly stimulating effect on the bowel itself.

Anything over 48°C. causes a more or less tetanic condition, which gives a sensation of griping or intense desire for stool. These spasmodic contractions are so violent as to cause a very perceptible motion of the tube, an intermittent return flow, and often will pocket the water, not allowing any return at all for some time.

General Effect

The ordinary large warm injection has little or no general effect other than the sensation of the bowel movement or, under certain circumstances, may cause a slight general weakness following the movement. But when the high temperature, from 38° to 40°C., is used, the first effect is usually noticeable in the feet, it being a sense a warmth and tingling, following this it is the hands, and then the whole body.

As a rule, the patient perspires very freely before the end of the treatment. The pulse will increase in frequency from 5 to 30 beats per minute, but the volume and rhythm, so far as I can observe, are not changed. Occasionally the patient after the treatment will feel weak and exhausted, finding it necessary to lie down for a few minutes; but, aside from this, I have never noticed any deleterious effect. This can be prevented by finishing the treatment with a cold injection.

Indications

1. Constipation

The most common indication for lavage is that of constipation. The treatment of constipation by lavage differs according to the etiology. If the condition be one only of physiologic changes due to atonic conditions, the best results are obtained by the use of small quantities of water, oft repeated, at a very high temperature. This has a tendency to stimulate peristalsis without increasing the atonic condition by over distention from the weight of water. This

is also true of those cases of constipation due to catarrhal conditions of the bowel, as colitis or cnterocolitis.

In these cases the action is two-fold, viz:

1. The stimulating effect upon the bowel.
2. The application of heat directly to the diseased surfaces, thereby causing a decrease in the inflammatory condition of the bowel.

I have invariably utilized this treatment in all cases of constipation rcsulting from such diseases of the stomach as gastritis, dilatation and hyperchlorhydra, etc. It is especially valuable in these cases. Of course, the fecal matter in constipation resulting from impaction, stricture and the like will be removed quicker by larger amounts of water at a much lower temperature.

In 31 cases of constipation treated due to atonic and catarrhal conditions, I can report cures in 24 cases, improvement in 5, no relief in 2. In 3 of these cases I found it necessary to use a cathartic; and then only for a short time. In cases of mucous colitis I am able to report good results, but feel the treatment must be continued at intervals for some time before permanent results are obtained.

2. Diarrhea

The next condition is that of diarrhea. Lavage gives better results in those cases which are due to the diseases of the colon rather than of the small bowel. It may be used either in the acute or chronic forms of diarrhea. It is especially useful in stercoral diarrhea, that form in which diarrhea exists with constipation. In diarrhea due to tubercular conditions much aid can be given the patient. I have seen two cases which made such an improvement that I would like to make a short report of them.

Case 1 - The first, man 24 years, had from 5 to 8 stools daily. Was sent West, and after 6 months in Arizona returned in about the same condition. Lavage of the colon was instituted for several weeks, when the stools dropped to 1 or 2 daily. The patient gained in weight and strength and made a general improvement. Tubercle bacilli was present in the faeces. As this was only a few months ago, I am not prepared to say what the outcome will be.

Case 2 - The second case, man, aged 20, was under my care for only a few weeks, when the family suddenly decided to have an operation done for chronic catarrhal appendicitis. Operated against my advice. Appendix removed and found normal. The patient rapidly lost ground and died, just a few days ago, from intestinal tuberculosis. While under my care gained in weight, strength and appetite. Stools dropped from 4 and 5 to 1 and 2 per day. Looked better and felt better in every way, but gain was not fast enough to suit family. There is one other important point which must not be over looked along this line, and that is the help we may obtain from this measure in the diarrhoea of children. In case of cholera infantum and acute dyspeptic diarrhoea it is not uncommon to see a very perceptible drop in temperature follow one or two flushings of the bowel in these conditions.

3. Dysentery

In amebic dysentery, injections of quinine 1-2000 or more are much vaunted, and I think, considering the results obtained, properly so. In the chronic dysenteric conditions much good can be accomplished. Here again I like to use the high temperature, with repeated injections of small amounts. But these cases should be taken only with the understanding that to get the results treatment must extend over 4 to 6 weeks at the least consideration. If the patient is willing to do this it is possible to extend the hope of recovery.

4. Typhoid Fever

Just before giving up my general work I tried treating 2 cases of typhoid fever by daily irrigations of the colon, with only a small amount of salol by month. As I have had no opportunity to follow this up, I am unable to draw any deductions therefore, but of the two cases stated I will make the following reports:

Case 1. Lavage badly borne after 3rd day. Had to cease entirely after 7 days, but temperature raised from 1 to 2 degrees after irrigations ceased. Patient made a good recovery.

Case 2. Irrigations continued 12 days. Fever only twice above 40° C. No discomfort from enemas. Slight delirium only three times during attack. Uninterrupted recovery. Water used was never above 38° C., causing little or no tentanic contraction, a small amount only being allowed in the bowel at any one time. This, I think, is rational therapy, as it keeps the colon clean.

5. Hepatic Atrophy

In that form of chronic hepatic atrophy due to insufficient nutrition as a result of stomach or intestinal trouble, I find excellent results from lavage of a high temperature. This condition is much more prevalent than is supposed. I find it in about 70% or 75% of all cases of gastrointestinal disturbances. While I have never been able to see a complete restoration in size in these cases, I have been able to make out an increase and also to give my patient considerable relief. This can not be accomplished in a few treatments, but takes several weeks. In cases of sigmoiditis, proctitis and periproctitis, best results are obtained by the high temperature injections.

6. Headache due to Gastrointestinal Disorders

Headache also claims attention, and I have attained excellent results in several cases of so called sick headache, due to gastrointestinal absorption of toxic substances. Two of these cases had suffered from headache for years, one for 18 years and the other for about 10 years. The attacks would last from 12 to 36 hours, occurring every week or so. One case dismissed 18 months ago and the other 13 months ago, with no return. Whenever these cases present themselves to the practitioner it is well to determine if they are of gastrointestinal origin, as so many of them are, and treat them accordingly with lavage. In diseases aside from those found in the digestive tract, colonic lavage is also useful.

7. Kidney Lesions

My attention was called to the effect of lavage on the kidneys in one of the first cases I ever treated by lavage from the fact that in 2 or 3 treatments the urine was changed from a foul smelling article, with large deposits, when allowed to stand, to a practically clear normal condition. There was also an excess of phosphates, which soon disappeared.

Soon after this I had an opportunity to treat a case of temporary albuminuria, second attack, in which edema of the eyelids and feet was present. Nitric acid showed about 70% per volume of albumen. Albumen disappeared after the 3rd treatment, with lavage at a high temperature. In cases of chronic nephritis I would advise the use of a higher temperature than is ordinarily used in these cases. I think quicker and better results can be obtained, for the renal activity is much more marked. If suppression has taken place, the kidneys can be aided greatly, not only by the local effect of the heat on the kidney, but by the diaphoresis following the administration.

8. Nervous Disorders

Under the head of nervous disorders I wish to mention

that Dr. Moyer, reports three cases of insanity proceeding from the colon, relieved by flushing of the bowel. I myself have only seen one case of this kind, and that during my service as hospital chief. These cases were treated by large enemas until the entire faecal mass was removed, when the patients began a rapid improvement and made an uninterrupted recovery.

In Conclusion: I find that about 85% of chronic cases give best results from the high temperature injection, while a far less percentage of acute cases are adaptable to this mode of treatment." - Dr Milton H. Mack, MD Professor of Gastroenterology, Illinois Medical College, in "The Chicago Medical Recorder", 1904.

> *"I have described a series of cases where the same syndrome has accompanied dilatation of the colon. When stagnation in the bowel was accompanied by grey pultaceous and offensive motions, tetany followed and was only relieved by colonic lavation." - Dr. Frederick Langmead, MD, in "Discussion on Alimentary Toxemia", Proceedings of the Royal Society of Medicine, 1913.*
>
> *"I did not mention massage, but I should have mentioned it as one of the important adjuncts in the treatment of these conditions. It should be used in every case and I do use it. As regards the method of introducing the water into the bowel. I thought my description of that was clear. It is simply one of gravity, and water can easily get into the bowel. I did not say constipation was a disease. I realize the importance of not calling it a disease as well as anyone else, but it is a symptom of a great many diseases, and if you relieve the disease you relieve the constipation. Furthermore, I stated the cases*

which I had treated were due to atonic conditions of the bowel, and inflammatory conditions of the bowel, as mucous colitis, and enterocolitis. In regard to constipation being associated with diseases of the stomach, I certainly would direct my treatment towards the stomach in catarrhal gastritis or dilation. But when you have an irritated colon, one that is diseased, accompanied with dilation of the stomach, or gastritis, it is wisdom to direct a certain amount of your treatment to the colon, and I know that I get good results in these cases by so doing. A word or two in regard to the time consumed in giving Colonic Lavage. You can take as much time in these cases as you desire, but my experience has been in treating a good many of these cases, that the time required is not over 15 to 20 or 25 minutes at the outside. I see no necessity of putting in 45 minutes or an hour in the use of colonic lavage when it is not required. It is true, this treatment is not new, but there are some things which we should consider occasionally even if they are old. But, as Dr. Montezuma has said, physicians should educate themselves to give lavage properly." - Dr Milton H. Mack, MD in "Illinois Medical Journal", January 1903.

The Therapeutic Method of Irrigation of the Colon

"Another therapeutic method which has been systematically employed in recent years in many cases of intestinal disease is irrigation of the colon. By means of physiological salt solution the large intestine has in many cases been washed free of its contents. This procedure has now been frequently practiced with extremely beneficial results in the direction of diminishing excessive intestinal putrefaction. I have known it in several instances to be

followed by a reduction in the output of ethereal sulphates and in the excretion of indican by the urine.

Coincidentally there has been definite relief from pronounced symptoms such as headache, mental depression, irritability, intestinal flatulence, etc. In several instances of advanced anaemia (including some showing the blood changes of the pernicious form) there has been a very rapid improvement in the haemoglobin and red blood cells, together with a prompt disappearance of megaloblastic and other pathological forms of red blood cells. There is no room for doubt that the intelligent practice of high intestinal lavage leads to considerable improvement in many cases of chronic saccharo-butyric putrefaction.

The beneficial effects have been pronounced and prompt in some cases where an extreme indolic putrefaction was associated with the saccharo-butyric type. If the lavage be practiced cautiously with respect to the avoidance of an excessive volume of fluid, the method may be applied for a considerable period of time without discernible harmful effects. It is perhaps better to employ lavage two or three times in the week than to use it each day. In some persons who are victims of a chronic infection of the intestine with putrefactive anaerobes the intelligent application of the foregoing measures suffices to bring about a high grade of improvement." - Dr Christian A. Herter, MD in "The Common Bacterial Infections of the Digestive Tract and the Intoxications Arising from Them", 1907.

The Methods of Giving Colonic Irrigations in Children

"Colonic Irrigation, Enteroclysis, or High Enema, has been recognized for years as being one of the most valuable methods in the treatment of disease, in adults as well as in children, and various methods of administration have been, and still are, employed. Among other indications for the use of this therapeutic measure might be mentioned the reduction of temperature, the relief of constipation, the elimination of gas, the quieting of the nervous system, the

increase of renal activity and the administration of nourishment. It is our custom to first pass the well-oiled rectal tube or catheter into the rectum about 2 inches, the child lying on its back or left side on a Kelly pad.

The tube is held in this position for a few minutes to allow of the escape of gas, as it has been found that the pain frequently complained of during Colonic Irrigation is entirely avoided if the gas is first gotten rid of. It is equally important to rid the tube attached to the container of all air by letting a few drops of fluid pass through.

The fluid used is usually either normal salt or 2% to 5%, sodium bicarbonate solution; the temperature is about 38 C., and the quantity employed is rarely less than 2 quarts, and much more if it is not returning clear. When the colon is fully distended contraction takes place, which expels much of the contents, as shown by the squirting of the returning solution along side of the tube, so that there need be no fear of too much fluid being used.

Massage of the abdomen when the colon is distended with fluid is often beneficial. Urination practically always occurs during the giving of a colonic irrigation, and it is not surprising, therefore, that a child usually goes to sleep immediately after, if not during, the treatment, in view of the elimination of gas, mucus and faeces from the bowel and the passing of urine from the bladder, to say nothing of the reduction in temperature.

Although no harm is done, even in typhoid fever, as the Peyer's patches are situated higher up in a child than in the adult, nor is the efficacy of the irrigation in any way diminished. The above is true in both adults and children. We bring the matter to your attention to remind you of the great value of colonic irrigations as a therapeutic measure." - Dr H. Brooker Mills, MD, Professor of Pediatrics, Medical Department, Temple University, Physician to the Philadelphia Hospital for Contagious Diseases, Dr Gustavus C. Bird, MD, Lecturer on Roentgenology, Temple University Philadelphia, in "The Pennsylvania Medical Journal", March 1919.

Chapter 34

Clinical Case Reports

"Hot Rectal Irrigations of salt solution once daily cause a marked improvement in the painful and inflammatory symptoms referable to the bladder and prostate." - Hayden in Conservatism in the Diagnosis and Treatment of Prostatic Hypertrophy, "N. Y. Med. Rec.", 23 March 1901.

Flushing of the Colon

"Flushing of the colon is a very simple and a very effective remedy. The muscular coats of the intestines are circular and longitudinal. In the large intestine the longitudinal fibres are proportionately longer than in the small intestine.

Their greater length permits the formation of loculi, which become the seat of faecal accumulations only too often unnoticed by the physician. It is undoubtedly a fact that the loculi of the colon contains small faecal accumulations extending over weeks, months, or even years. Their presence produces symptoms varying all the way from a little catarrhal irritation up to the most diverse, and in some instances, serious reflex disturbances. When the loculi only are filled, the main channel of the colon is undisturbed. Occasionally a loculus will be come greatly enlarged and filled with faeces, reaching even to the size of a foetal head, being mistaken for an ovarian tumour, or a malignant growth of some abdominal organ. The most common part of the colon to become enlarged is the sigmoid flexure and the caecum.

Accumulations can occur in any part of the colon. The ascending colon is much more often filled in life than the

books would lead us to believe; indeed, it may be said that chronic accumulations are oftener to be found in the ascending, than the descending colon, which is also contrary to the assertions of the authors. When the accumulations are large, the increased weight of the colon tends to displace it; then the transverse colon may descend even into the pelvis. The colon may be filled in an adult so as to present a circumference of fifteen inches.

These accumulations vary in density; they may be so hard as to resist the knife, and thus be mistaken for gall stones. The mass may be so enormous as to press upon any organ located in the abdomen, interfering with its functions; thus we may have pressure on the liver that arrests the flow of bile; or, upon the urinary organs crippling their functions. Reported cases of accumulations almost surpass human credulity. Enough has been gathered from the colon and the rectum to fill a common sized pail.

Of course, such enormous amounts occur only exceptionally; it is not to these that attention is particularly drawn in this paper, because where they are so excessive, any physician can detect them by palpation. It is to the minor accumulations particularly that I wish to draw attention, the accumulations that we see in the majority of patients who visit our offices.

Such patients assure us that the bowels move daily, but the colour of their complexion, the condition of their tongue, and, above all, the colour of the faeces, are enough to assure us that they are the victims of costiveness. Daily movements of the bowels are no sort of a sign that the colon is not impacted; in fact, the worst cases of costiveness that we ever see, are those in which daily movements of the bowels occur.

Diagnosis

The diagnosis of faecal accumulations is facilitated by inquiring as to the colour of the daily discharges. A black or a very dark green colour almost always indicates that the faeces are ancient. Prompt discharge of food refuse is indicated by more or less yellow colour. It would be

interesting to inquire why fresh faeces are yellow and ancient faeces are dark.

Absorption of the faeces from the colon leads to a great many different symptoms; amongst others:

1. Anaemia, with its results, sallow or yellow complexion, with its chloasmic spots (melasma, dark skin discolouration)
2. Furred Tongue,
3. Foul Breath
4. Muddy Sclerotics

Such patients have digestive fermentations to torment them, resulting in flatulent distension which encroaches on the cavity of the chest,which in excessive cases, may cause short and rapid breathing, irregular heart action, disturbed circulation in the brain, with vertigo and head ache. An over-distended caecum, or sigmoid flexure, from pressure, may produce dropsy numbness or cramps in the right or left lower extremity.

A physical examination that will determine this impaction is simplicity itself, by placing the patient on the back, with the knees well drawn up, the physician can place one hand on the abdomen, below the tenth or eleventh cartilage, with the fingers of the other hand in the posterior hypochondriac region. The ascending or descending colon can easily be pressed forward against the hand in front of the abdomen. The hand in front should be kept firm and immovable.

A little practice will enable one to very readily distinguish these accumulations. Conjoined manipulation only enables one to decide the incontestable presence of impaction of the colon. Percussion sounds may be so obfuscated by adventitious circumstances as to render them valueless. Conjoined manipulation can be very quickly practiced, and is the most satisfactory method of examination. Its only uncertainty of detecting accumulations is in very obese patients. In them a flushing will dispel doubts.

Case Reports

Headache, Dizziness

Case 1: Miss O., age 27, has almost continuous universal cephalagia (cephalalgia, headache); pain over the angle of the transverse and descending colon, anorexia, functional eye disturbances coming on suddenly and often in the day, frequent dizzy blind spells, vague muscular pain in the arms, face yellow, is green around the mouth and nose, a greenish yellow all over the head and neck. On the 21st of May, 1886, first flushing, 2.5 litres of water being used; discharges enormous, The appetite at once appeared; her spirits immediately improved. Daily flushings until the 7th day of July. Face almost entirely clear; colour coming to her cheeks; lips red, digestion perfect; and her general health totally changed for the better.

Mental Health

Case 2: Mrs. G., age 32, has very yellow cheeks, both covered with chloasmic spots, which extend down to the neck; is costive. Conjoined palpation indicates both ascending and descending colon filled. Is losing strength, is anaemic, emaciating. Her husband's poverty is causing the most distressing anticipations, and her mental suffering almost drives her insane. A daily flushing was ordered on the 10 August, 1887, and continued until November 2d. After that they were taken every other day.

On the 25th of February, 1888, she reported that the flushing had completely revolutionized her health; they made her feel light and strong; they relieved the pressure in the abdomen; their presence caused eructations always. Sleeps better after taking one. In fact, if she find that insomnia be upon her, she takes a flushing and is sure to sleep soundly thereafter. Eating when fatigued will be followed by great tympanites, which a flushing is sure to relieve. Formerly had great acidity of the stomach; now she never has it. Formerly she used to have a headache, with

vomiting and prostration, lasting 36 hours every 2 or 3 weeks; since August she has not had one. Urinates very freely after using flushing, which lightens her very much.

Constipation and Digestive Problems

Case 3: Mrs. R., age 29, has had chronic digestive disturbances; a poor breakfaster for years; has gastric dyspepsia characterized by pain; load, weight, gas, acid and bitter pyrosis; could eat but few things, butter especially distressing her; constipated and costive since girl hood; for years had a sense of pressure in the rectum; at times, of late, has had it all the time. Flushing first given the 17 May 1887, twice per week, at bedtime. At first they produced pain and nausea, and once vomiting followed. These adverse symptoms were relieved when the water passed. The discharges from her bowels were simply enormous. They were continued until she passed yellow faeces. On the 28 June she was eating everything. She has become a good breakfaster. On the 1 August she was doing all her own housework, the first time in 3 years.

Constipation and Nervousness

Case 4: Miss C, age 30, always constipated, very muddy complexion, chloasmic spots all over her face, capricious appetite, seeks relief for a progressively increasing nervousness, which has been upon for the part three years, and is very much worse in the past 6 months, and threatens to lead her to a suicide's grave. She experiences sudden misgivings; she has nervous prostration, colon filled to an enormous extent. Flushing was used and continued daily for a period of one month, when she reported that she was better in every way, does not give out any more; is stronger in all things; her complexion is clearing out; the chloasmic spots are unchanged; the appetite decidedly vigorous. In this case the faecal reliefs were enormous, and the improvement so rapid that there was no question of their being cause and effect.

Epileptic Convulsions

Case 5: Mrs. A. age 34, has been having epileptic convulsions since April, 1883, 2 years subsequent to her only confinement. Immediately after her confinement, in February, 1881, she began to experience nervous symptoms, such as numbness, twitching of the left side of her body; these increased until convulsions began in April, 1883. From that time until the 1 May 1887, she was under the care of various European and American physicians. She had had the cervix and perineum closed by operation; she had had almost endless medication, had used hydropathy, but still the convulsions continued. Careful examination revealed a loaded colon, universal congestion of the pelvic organs, and renal insufficiency.

It was evident that the convulsions arose from some trouble upon the left side of her pelvis, which, in a normal state, would not produce convulsions, as subsequent events showed, but in a congested condition was sure to precipitate convulsions. This was shown by the fact that the convulsions were preceded by an intense agitation of the muscles of the left lower extremity, which became more and more uncontrollable until the convulsion developed a pain in the left leg and could be produced by a pressure on the left side of the pelvis. Treatment for left-sided sciatica with ether and ice was given immediately after confinement. Pain through the pelvis from over exertion, or from too much standing, would be produced in the left leg, just the same as would be produced by digital pressure.

There never was a convulsion that was not preceded by this disturbance of the left side. Matters clearly pointed to the pelvis for treatment for the relief of the convulsions. It was considered that if the pelvic difficulty could be relieved by any means, that possibly the convulsions would be arrested; accordingly, daily flushings of the colon and a diuretic were used; glycerin tampons were also daily used. The amount of relief was very great. For weeks the daily report was that the flushings came away looking like soap

suds, indicating a probable overplus of bile, which seemed to be confirmed by the fact of stomach indigestion and intestinal fermentations which she had had for years.

The result of the treatment so improved the patient that in three months after the beginning of the flushings, etc., the convulsions ceased for a period of nineteen months. During that time she again visited Europe, relaxed her vigilance as to the care of her health, returning to America in January of the present year. Her face showed that she was absorbing faeces again, and in various ways she indicated that her trouble was returning. Before she left for Europe the pelvic organs were in a condition demanding no further treatment. She was urged to return to her flushings, which she omitted to do and went straight on her iniquitous course of neglecting herself, and in February, about a month later, she had one of the most terrific convulsions she had ever experienced.

Comment on Case 5

I believe that the flushings did for this patient what medicine could not do. They thoroughly evacuated her bowel and gave her alimentary canal a chance to absorb food instead of faeces. I furthermore consider that the successful treatment of this patient with medicine, without flushings of the colon, will be entirely unsuccessful.

Chills and Vertigo

Case 6: Miss O. has been having chills daily, has a constant bad taste in the mouth, has vertigo, scalding urine, has eczema extensively on the right hand and fingers. Examination reveals a loaded colon, although her bowels move nearly every day. Ordered daily flushings of the colon, a daily laxative, and the pot ash citrate. In a week the chills ceased entirely, the vertigo had disappeared, the urine was improving. Medicine stopped, and the flushings continued for a period of 6 weeks daily. The surprising thing is that at the end of 6 weeks the hand was entirely well. The question

comes up, was not the eczematous condition of the hand a thing permitted to supervene from faecal absorption?

Psoriasis, Gout, Headaches

Case 7: Mrs D., aged 29, has psoriasis covering a large portion of her body. She has as much unsound as sound skin, has had it more or less since the 8th year of her age. She is gouty, has gastric indigestion, headaches every 2 or 3 weeks, which always wind up with vomiting.

After giving her medicines for a period of seven months without much benefit, I discovered an impacted condition of her colon. The effect of the flushings seemed to be to relieve her of all dyspeptic troubles, relieved her headaches entirely, and at the end of three months of using flushings, the psoriasis had almost entirely disappeared. The last time that she was seen a few spots of it remained on the abdomen and forearms. The question arises, did the prevention of faecal absorption relieve a skin disease?

Constipation, Headaches

Case 8: Mrs. W. age 30, has had headaches for years anywhere from once a month to once in 4 or 5 days which prostrated her, lasting from 6 to 24 hours. She always had been constipated, and strange to say, about the only thing that ailed her was head ache. Her colon was found loaded. Flushings ordered for a period of 3 months, without medicines. The headaches were completely and permanently relieved; her complexion which had always been muddy cleared up greatly, sending out in bolder relief the chloasmic spots which decorated her fore head and temples.

Remarks

I have often questioned whether chloasmic spots were not due to faecal absorption. These spots are pigmentary matter deposited under the skin. It is a physiological fact that all pigments originate in the liver. In a condition of health their

abnormal deposit we never see. It is only when the patient is not well in some way, that these spots are noticed. It is easy to see that their sedentary life is more apt to lead in them to the filling of the colon.

Absorption from the colon produces a poisoned blood, which in turn deranges every organ of the body, among others the liver. It is possible that the action of light, as in photographs, contributes in some way to precipitate the deposits of these chloasmic spots, because we see them chiefly upon the parts of the body exposed to light.

Technique

The patient should be placed in a genu-pectoral position, the shoulders thus being lower than the hips. The water will be made to descend while anatomically ascending the intestines. Patients can be made to receive from 500ml to 3 litres of water in this position without the slight est trouble. One of the effects of the water is to distend the colon, and in that way pressing away the walls of the loculi from the accumulations they fall into the current of water, and are passed out while the water is leaving the intestine.

The patient will often-times complain of severe tormina (severe pains in the stomach); checking the current of water for a few seconds, and will be followed by complete relief. The presence of such a strange foreign body in the intestine as hot water in many cases excites prodigious peristaltic activity, thus producing the tormina. Plain hot water is all that is necessary to use, the water should be 38 C. The use of water at 38 C is never followed by a cramp.

Diuretic Effect

Upon many patients this large amount of water acts as a vigorous diuretic. Where patients suffer as well from renal insufficiency, I am in the habit of telling them to use a 500ml or a 750ml of hot water after the flushing has passed away, and to lie upon the back with hips elevated for 30 minutes.

Thus retaining the water, it will act as a powerful diuretic. Some patients can administer this flushing with greatest ease, while others will develop a most phenomenal awkwardness. I am in the habit of telling patients to kneel in the bath tub, who are at all awkward about using these flushings." - Dr J. H. Etheridge, MD, Instructor in Principles and Practice of Medicine, in "The Medical Standard", Vol.5-6, 1889.

College Clinic, Louisville City Hospital, Clinical Cases

"Case 3 - Pyosalpinx; myofibroma of the uterus; vaginal ablation. Recovery. Woman, aged 35. Has had uterine trouble for about 15 years, since birth of last child. Menstruates regularly. Was brought to the hospital suffering with many symptoms of intestinal obstruction, and the reason for coming was because of her inability to get an action of the bowels.

Enemas, followed by cathartics, soon relieved this condition.

Case 5 - Pelvic abscess; pyosalpinx. Woman, aged 23. Gives a history of leucorrhea for past 2 years; is a sporting woman; the present attack began four days before entering the hospital. Following shortly after sexual congress, which was very painful, patient had 2 chills. When she came to us the pulse was 115; temperature, 102; respiration, 30.

There was great pain and distention of the abdomen was marked. Peritonitis was evident, and we believe it was due to the escape of pus from a distended tube. Under enema, hot douches and turpentine stupes, the patient slowly improved." - Dr George S. Coon, MD in "Journal of Orificial Surgery", Vol. 8, 1900.

Irrigation of the Colon as a Therapeutic Measure

"The introduction of water into the bowel per anum is made by injection and irrigation. In the former, only a small amount of fluid is required; in the latter, the quantity is indefinite, as it is immediately allowed to again leave the system.

The fluid acts in part mechanically as a foreign substance, provokes expulsion movements, as a solvent for intestinal catarrhal products, and, where large quantities are used, drags upon the upper intestinal coils, causing thermal changes and peristalsis. As these irrigations act mechanically in that the weight of the fluid draws upon the upper portion of the intestines, they are often of great value to relieve constrictions and incarcerated hernia, to remove fecal matter, mucus and epithelial remnants in chronic enteric catarrh, in dysentery, and in oxyuria, in fact, in all conditions where the system has been depleted or become vitiated by toxic auto infection, such as hemorrhage, cholera, yellow fever, diabetes, uremia, shock, collapse, etc.

In these cases the normal saline solution has been given with the best results, as seen by the improvement in the circulation, the re-establishment of the normal temperature of the body and the stimulating effect upon the nervous system. Irrigation of the Colon has been followed by immediate amelioration of the serious symptoms of the initial stages of appendicitis, and Love reports several cases in which enemata of one-half gallon of water at 38 C., were given high up, producing peristalsis and flushing out the irritating matters of undigested food, ptomains, etc. Shuell 3 recommends the same treatment in typhoid fever:

> *"to remove at as early date as possible all ptomains and decomposing substances from the colon."*

The fluid may be readily made to pass the sigmoid flexure and reach to, or near, the cecum. The injection will

distend the bowel and remove the accretions from the sacculi. He also cautions against its use during the stage of necrosis of the glandular tissue, as the solitary glands of the large intestine are affected in a large proportion of cases. Hensell speaks of the value of Colonic Irrigations of one-half to one liter, twice a day, reaching up to the ileum, so that their effects are also directly upon the gallbladder and liver; and Lowenthal reports 41 cases of catarrhal jaundice cured by this method. These eases were of the type of gastroduodenal catarrh, with symptoms of anorexia, pressure in the gastric and hepatic regions, constipation and great prostration.

Clinical Cases

Case 1

Typhoid fever; female, aged 20 years. When first seen, on the 11th day of the disease, she presented every characteristic symptom, except the diazo-reaction, which was absent throughout. From the 14th to the 25th day her evening temperature ranged from 39.5 C to 40.5 C, which was promptly reduced to 38 C, by cold spongings. On the evening of the 16th day she had a profuse hemorrhage from the bowels, and on the day following several smaller ones. Severe tympanites developed. At this stage irrigation of one-half gallon of water at 5 C., and one-half ounce of turpentine, was resorted to, and after this was evacuated, 500ml of normal salt solution was injected and allowed to remain. The ice pack was applied to the abdomen. After each irrigation marked improvement took place. The temperature fell several degrees, the pulse, which was from 140 to 150, and dicrotic, became strong, regular and reduced to 120 to 125 per minute, the nervousness abated, tremor and subsultus tendinum subsided. This treatment was continued until the 25th day, when defervescence set in and the patient progressed to complete recovery.

Case 2

Appendicitis; male, aged 45 years. Patient had just arrived

from New York City, where he had a similar attack, which kept him in bed for 5 days. Having recovered, he attended to his business affairs and then started back to this city, but was seized on the train. When seen he was suffering very acutely, knees drawn up, anxious countenance, clammy sweat, temperature 38 C., pulse 90, exquisite tenderness over McBurney's point and continuous vomiting. Several small dosses of cathartic were given, followed by a Seidlitz powder, ice to abdomen and high irrigation of the bowel with one-half gallon of water at 5 C. After the intestinal tract was thoroughly cleared out by 2 more similar injections, at intervals of 12 hours each, the pain ceased, temperature and pulse became normal, and all further symptoms disappeared. The patient was under observation for three months after the attack and has since been in perfect health.

Case 3

Appendicitis; male, aged 40 years. Was suddenly taken with violent pain in abdomen, especially pronounced over McBurney's point. Temperature 38 C., pulse 90. He presented all the symptoms of Case 2, but was seen several hours earlier in the attack. The same treatment was given and he recovered completely, and has been well since.

In each of the above cases surgical interference was considered; in the first case for impending perforation, in the latter, for the most opportune time to operate, but each improved at the most critical stage, which can only be attributed to the free Irrigation of the Colon.

Discussion

Dr. Daniel B. Brower, Chicago, said that too little attention has been given by the profession to colonic flushing. He personally, very much prefers the normal saline solution, or anything else which has been proposed for this purpose the solution should be about the temperature of the intestinal tract. Not only does this flushing have a very great effect on the contents of the colon, but there is also a very prompt and

remarkably active effect on the renal organs. In cases where the kidneys are deficient, as in certain infectious diseases, a large amount of saline solution thrown into the bowels will very speedily set up action of the kidneys. It is diuretic as well as antiseptic in its relation to the colon, and this feature is often overlooked. He is quite sure that this therapeutic measure is not resorted to as often as it should be.

Dr. O. T. Osborne, New Haven, Conn., approved of the recommendation of colonic flushing and said that it is not resorted to as often as it should be by surgeons after operations. Some make it a routine practice to inject 1 to 2 quarts of saline solution, but many others do not. The condition of surgical shock is due to paralysis of the vasomotor system, and in that condition the heart gets very weak, because the ventricles are not properly filled.

The moment the blood-tension goes down, that moment the heart is impaired in its action. Flushing the colon fills the blood-vessels at a time when we know it will take several hours before anything can be absorbed from the stomach owing to nausea and vomiting, also during this period very concentrated urine is passed. This condition threatens kidney congestion and will be overcome by colonic flushing with normal salt solution.

Dr. J. C. Culbertson, Cincinnati, Ohio, said that as a means of reducing temperature, flushing of the colon with cold water, in infectious diseases, is one of our best remedial expedients. A quart of ordinary ice water will reduce the temperature 1.5 degrees in a case of fever, say 39.5 C, if thrown into the rectum and retained there, and it can be repeated as often as thought necessary. It is a very valuable resource, it can do no possible harm and is a source of comfort to the patient.

Dr. M. Bernheim, Philadelphia, said that he had shown, by physiologic experiment, that following an injection of the salt solution there is an antiperistaltic action set up which carries the solution up into the higher part of the small

intestine and also into the stomach. Therefore the beneficial action of the large injections of saline solution is more easily understood, as the surface for absorption becomes larger.

Dr. G. J. Lochboehler, said that as regards temperature the use of ice water is often very beneficial, but in both of these cases he has used the injection at 5 C, which is sufficient to reduce temperature. He wished to call attention to the fact that the injection of ice water in the case of hemorrhage reported, with a temperature of 40.5 C., and about to die, was done as the best method of causing reaction, and he firmly believes that the patient was saved by checking the hemorrhage by the stimulating effect of the injection of cold water.

But as he already mentioned, the saline solution given at the body temperature will aid in a great many cases in aborting infection and infectious disease." - Dr Geo. J. Lochboehler, MD, Assistant Professor of Materia Medica & Therapeutics, Lecturer on Pharmacy, School of Medicine, Georgetown University, Washington, DC., Presented to the Section on Materia Medica, Therapeutics and Pharmacy at the 51st Annual Meeting of the American Medical Association, 5-8 June, 1900, in JAMA, 2 March 1901.

Preliminary Report of the Treatment of Idiopathic Epilepsy by Appendicostomy for Colonic Irrigation

"Epilepsy is but a symptom revealing some irritation of the general nervous system. Certain chemical substances have a distinct affinity for the cortical cells of the brain and cord and, as a result, excite them. Among the alkaloids, strychnin is prominent. Among toxins resulting from infection, the poison of tetanus and hydrophobia afford us similar examples.

These toxins generated in the body under the influence of the developing pathogenic organism finally accumulate to

such an extent as to produce a violent action on the cerebrospinal system, followed by contractions of the muscular system characteristic of these diseases. Very similar is the reaction of strychnin, which, if given in sufficient doses, will produce analogous muscular contraction. One of the curious phenomena attending the physiologic action of drugs is the tendency of some, such as digitalis, to accumulate in the body until a certain amount has been taken, and then the physiologic action of the accumulated doses is manifested.

This is known as the cumulative action of a drug. Is it not possible that some such cumulative manifestation of a toxin as a result of the intoxication from improper food or tissue metabolism may be at the bottom of the spasmodic and periodic manifestations known as idiopathic epilepsy? In early childhood, spasms are known to be due to improper digestion, or irritation of a foreign body, or the presence of worms. Epileptic patients are generally afflicted with some intestinal disorder.

They suffer at least from chronic and habitual constipation. They complain of multiform digestive symptoms indicative of imperfect metabolism, but at the same time so obscure as to give no decided clue as to what the imperfect transformations of food may be. At present most of those who have given special attention to this class of cases agree that the chief element in the rational treatment of these patients is an intelligent diet; based on restriction of food, its simplicity and predigestion. The antispasmodics as remedial measures have had a fair trial. These drugs are good for awhile, but they do not give permanent relief; nor do they in any way reach the etiologic factor by tending to remove or control the cause of epilepsy.

Function of the Colon

Metchnikoff, in "The Nature of Man," says that from a standpoint of anthropology the colon is a receptacle for refuse undigested matter; that human life could be sustained in a purer and more physiologic state without its presence.

Sufficient digestive function is performed by the stomach and small intestine; sufficient absorption for the sustenance of the body takes place from these regions; and hence, as a matter of fact, the whole length of the colon could be dispensed with so far as our physiologic necessities are concerned.

In performing surgical operations on the intestinal tract I have often noticed that the character of the intestinal contents becomes really fetid only past the ileocecal valve. When the intestinal contents have passed into the colon, however, the digestive processes are almost completed, and a process of absorption on the part of the colon takes place rather than of further digestion.

The colon fulfills an economic purpose in removing, so far as possible, from the refuse products all the nourishing elements which may still remain. In order to achieve this result, however, the intestinal contents have a long road to travel and may be retained a long time before they are finally expelled. It is during this period of inactivity and comparative quiescence of the contents of the colon that the micro-organisms which normally inhabit the colon have full sway. They develop and produce putrid gases and toxic changes in the albuminoids so complex as to escape the analysis of the chemist.

Postoperative Constipation

What surgeon does not know the harmful effects of constipation after a surgical operation? The general depression of the patient, rapidity of pulse and elevation of temperature? What physician has not relieved a most obscure form of indisposition by the proper correction of habits of constipation, thereby removing the autointoxication? The power of absorption of the rectum and colon is remarkable. I have nourished a patient exclusively by rectum during a period of seven weeks. This fact illustrates the possibility of absorption on the part of the rectum, which presents the same power of absorption on whatever faecal matter passes through it.

Treatment

With this source of poison, and its cumulative action in certain human bodies, I have thought that it could be a sufficient etiologic factor in some cases for the sudden spasmodic manifestations which are called epilepsy. It would follow, therefore, that any method by which this poison should be either destroyed or its absorption prevented would contribute toward lessening the nature and frequency of epileptic attacks. With this in view, I have performed appendicostomy, creating an artificial fistula at the beginning of the colon.

I direct the patient to flush out his colon with 6 litres of warm water, morning and night. The patient, in a recumbent position, introduces the nozzle of the irrigator into an ordinary catheter, which, in its turn, is passed down through the appendiceal fistula into the colon.

The water is allowed to flow and is received into a bed pan on which the patient lies This copious irrigation does not seem to affect materially the patient's nutrition. His appetite improves, while a sense of well-being gives him a brighter and more cheerful appearance. The irrigation is not accompanied by pain, and the patient soon becomes so skilled in its use as to require no assistance whenever the indication exists.

Patient

The first patient on whom this method was tried was a man, L. A. S., aged 23, a sufferer from epilepsy since the age of 16, with attacks every week at first, finally as often as three times a day, losing consciousness about one hour each time. He was sent by Dr. C. S. Ruch of Lehighton, Pa.

Operation

The operation was performed in the Medico-Chirurgical Hospital, 1 July 1904, and the irrigations were begun 5 July. He had a violent epileptic attack on the day after the operation.

Postoperative History

The irrigations were taken systematically twice daily and continued for 3 months. Then he took but 1 irrigation 3 times a week for 3 months; then 1 irrigation a week for 3 months. He has not taken any irrigation since May, 1905, and from the day of the first irrigation until the present time he has never had another attack. He has gained 20 pounds, has returned to work, and feels absolutely well.

Conclusions

This and four other cases of a similar nature, not operated on sufficiently long enough to be reported in full, but giving ample encouragement for the continuance of the treatment, should afford sufficient reason for considering this method. The treatment is harmless, based on sufficiently sound theoretical and scientific grounds; and even should improvement not result to the epilepsy it can not fail to do good from a hygienic standpoint in affording general relief from the constipation to which most sufferers from epilepsy are subject. The repeated flushings of the colon keep it as nearly empty as possible and almost eliminate its presence as a reservoir for undigested and putrefying substances. At all events, although there is a constant flow of intestinal contents from the ileocecal valve, the repeated flushings do not allow these substances sufficient time to serve as a culture medium for the hoards of bacteria present, and hence reduce to a minimum the possible production of obnoxious toxins so liable to be reabsorbed into the system. Fear of a permanent artificial opening into the intestine should not be entertained. It is a matter of the greatest ease to allow the artificial fistula to close; and, after months of treatment, should one desire to discontinue the flushings of the colon, the natural processes of evacuation are resumed without difficulty. The procedure here advocated should be accompanied by the proper .dietetic measures usually resorted to in the treatment of these cases." - Dr Ernest Laplace, MD, Professor of Surgery, Medico-Chirurgical College, Philadephia, PA., in "JAMA", 2 June 1906.

A Case of Pellagra Treated by Appendicostomy

"Dr. Henry Norris, and Dr. M. H. Biggs published a preliminary report of a case of Pellagra (inflamed skin, diarrhea, dementia, and sores in the mouth) in which they did an appendicostomy for the purpose of irrigating the colon and the ileum and in which, at the time of reporting the patient had already experienced some relief. (The Charlotte Medical Journal, July, 1910) The patient a woman age 37, who had suffered off and on from symptoms referable to pellagra for 9 years.

In May, 1910, a diarrhea developed, which consisted of 3 to 4 stools each day with the same number each night.

Occasionally the movements contained mucus and blood. No medicines had any influence upon the diarrhea, which has been continuous. The hands, feet and forehead present a reddened, scaly eruption with a very severe burning, which had first appeared 9 years ago. The mouth is sore and there is a marked increase in the flow of saliva. The eruption began as a redness like sunburn and then get bluishbrown and scaly.

After due explanation of the purpose of the operation, to which the patient readily consented, she was prepared for laparotomy and the abdomen was opened. The appendix was found and brought up through the wound and the cecum was anchored to the parietal peritoneum by four sutures of number-two silk.

The abdominal wound was then closed by catgut sutures in tiers. The appendix was anchored by one silkworm-gut suture at the skin surface, 26 hours later, the patient having rallied well from the effects of the operation, the appendix was cut directly across and the Colonic Irrigations with normal salt solution at body temperature were commenced." - in "Clinical Medicine", 1910.

Colonic Therapy A System of Treatment of Disease

"Colonic therapy may be defined as a system of treatment of disease, both local and general, by the use of colon irrigations and instillations, together with the use of such other auxiliary measures as may seem indicated. The claims of colonic therapy for professional recognition rest upon the following premises:

1. That the colon is a common focus of infection and its lumen a natural breeding place for a large variety of bacteria.

2. That toxins, native proteins, and bacteria readily pass through the intact mucous membrane of the colon and are taken up by the capillaries and lymphatics.

3. That the functional threshold of detoxification and bacteriolysis of the liver is frequently overstepped, permitting these substances entrance into the general circulation.

4. That the mesenteric lymphatic system becomes overtaxed and inefficient, finally permitting bacteria and their toxins entrance into the receptaculum chyli.

5. That as a result of liver damage, portal stasis occurs, resulting in the shunting of bacteria and toxin-laden blood through the inferior hemorrhoidal veins into the general circulation.

6. That a symptom complex variously designated as autointoxication, chronic intestinal toxemia and chronic focal infection, with their many manifestations and complications, thereby ensues.

7. That the systems and methods of therapy now in use

are inadequate to cope with this condition.

8. That there is both a need and a demand for a more effective therapeutic regime.

9. That colonic therapy meets this need more adequately than any other system of therapy at present known.

Colonic Therapy

That the colon should occupy a position of such great importance in the therapeutic approach to this syndrome is perhaps accidental, yet we know that once it is involved, whether primarily so or not, a cure is hopeless until it is eliminated as a factor. Strategically it holds first place. Other foci may be surgically removed or drained, or successfully treated chemically or biologically, but not the colon.

Infection in it is very difficult to influence as the many elaborate attempts to do so indicate.

For these reasons colonic therapy, for the accomplishment of objectives already mentioned, is the most logical, rational and actually successful method of therapy at our command. It is the method of most direct approach to the key focus of infection." - Dr James Wesley Wiltsie, AB, MD in "Chronic Intestinal Toxemia and its Treatment. With special reference to Colonic Therapy", 1938

Colonic Irrigation and Bacillus Acidophilus Milk in Diarrhea

"The Bacillus acidophilus milk has been used by mouth in infant feeding in health and in disease. There are many advocates of its use in constipation and intestinal autointoxication. It has been used to advantage in constipation (1), mucous colitis, and the diarrhea of tuberculosis (2).

N. Philip Norman, MD, New York City, was the first to implant the B. acidophilus culture directly into the colon by way of the rectum. According to authoritative research (3)

the B. acidophilus is non toxic and in the intestinal tract establishes a simplified flora which is beneficial to the human system. In order to maintain the growth of the acidophilus bacilli in the intestines it is necessary to administer lactose in the form of sweet milk or the U. S. P. lactose. Taking the above into consideration, the writer decided to try the implantation of the B. acidophilus milk culture directly into the colon per rectum in cases of diarrhea. Norman colonic drainage technic (4) and the writer's apparatus was used (5).

Not having laboratory facilities for cultural work, and as there was no intention at the time these cases were treated of making a report of the results, no effort was made to identify the causative organism. The laboratory work done was limited to the examination of faeces for ova and ameba and in some cases white and differential blood counts were made. Twenty cases of diarrhea, which were diagnosed colitis acute, were treated by direct implantation of 500 c.c. milk cultures of the B. acidophilus into the colon per rectum. Colonic irrigation, using 1 to 2 gallons of warm water, according to Norman's technic (4) (5), preceded the implantation. Milk cultures of B. acidophilus, 1,000 c.c, were given by mouth daily. Besides the acidophilus and irrigation therapy, the patients were put to bed and their diets restricted to liquids.

Thirteen cases had the typical symptoms of acute colitis, temperature ranging from 38° C to 40° C, tenesmus, frequent bowel movements consisting of a small amount of blood mixed with mucus, and in some cases nausea. Seven cases were of subacute type, having no fever but all the other symptoms complained of by the acute cases. Three of the acute cases required a second irrigation before the temperature and bowels became normal, and three of the subacute cases required two irrigations before their bowels became normal. The other 14 cases had normal temperatures on the day following their only irrigation. The acute cases averaged four and a fraction sick days per patient and the subacute averaged three and a fraction sick days per patient. There were no recurrences.

Conclusions

1. All workers have reported that when 1,000 c. c. of the B. acidophilus milk is taken by mouth daily about 2 weeks is required to establish this organism predominantly in the intestines. It would appear that with the instillation of the live culture directly into the colon there is at least an immediate temporary change of flora.

2. The results obtained in this series of cases certainly indicates the superiority of this treatment over the usual treatment used.

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Systemic Disturbances Due to Colonic Infection

"Intensive study of the endocrine system has called attention to the fact that foci of infection are not necessarily, nor by any means invariably, located in the head. While this fact has been well understood, it has not seldom been entirely neglected, and the very areas from which the infection is being disseminated have been regarded as being themselves infected by some unlocated focus situated in the head. The occurrence of a cholecystitis or a prostatitis had been attributed to "bad teeth" or diseased tonsils when in reality it was exactly the other way about, the actual focus from which the toxins were being generated lying in the digestive or genital tract, and the oral or tonsilar condition being but a reflex result of this systemic infection.

That colonic stasis has been proved responsible for many focal infections and endocrine disturbances, admits of no contention. At a recent meeting of the American Electro-therapeutic Association, Charles F. Stokes of New York took occasion to remark during a discussion on colitis, that in many of these cases the endocrine system is depleted and the general metabolism suffers in consequence.

Because the conditions existing in the colon are so frequently overlooked many futile efforts are made to treat these local and general evidences of endocrine imbalance.

Everyone nowadays searches for focal infections along the avenue of "metabolic intake", the nasopharynx, the sinuses, the mouth, teeth, tonsils and respiratory tract, but the avenue of "metabolic outlet", the colon and the genitourinary canal, receive only scant consideration.

Especially is this the case when there is a psychic element involved, a frequent occurrence in all cases of endocrine dysfunction, and in Dr. Stokes opinion, the biologic approach seems to give us the clearest understanding of these problems, inasmuch as it brings home the conviction that it is erroneous to consider these lesions as of purely local significance. In his opinion, drainage, and the correction of the pathologic conditions in the colon can, in

the majority of cases, be best accomplished by the technic here considered.

While bacterial organisms enter the body by many routes, the most frequent avenue of infection is by way of the alimentary canal, and the greatest part of the elimination of the waste or toxic material which is constantly going on in the organism, is by way of the intestines. So long as the excretory organs are in good working order, deleterious bacteria are systematically neutralized or destroyed and eliminated. It is only when there is some disturbance of function that a change in the physiologic chemistry of the digestive tract can take place, with the resultant production of toxins.

These toxins are formed by the action of bacteria upon meat fibres and other protein material which has been arrested in its passage thru the intestine, so that intestinal stasis from whatever cause; enteroptosis, pockets, constrictions, is always one of the basic causes of such a putrefactive process. It has been pointed out by some recent French writers (Duval, P., and Roux, J. C. in "Stasis of the ascending colon and its surgical treatment", Arch, de mal. d'appar. Digestif, 1919-20) that in simple constipation, where the material accumulates in the descending bowel, there is often little appreciable effect upon the subject's general heath, many persons seeming to support this type of intestinal stasis without trouble. The difference appears to be in the point of arrest of the bowel content. While in left-sided constipation the material is dry and bacterial life less active, in the right colon we have a more or less fluid condition, because moisture is constantly being added from the small intestine; this keeps up an active focus of infection, resulting in general systemic intoxication.

If alterations occur in the mucous lining of the intestine, the character of the excretions will be very greatly modified, showing a preponderance of proteolytic organisms, which inhibit the fermentative bacteria, so that the feces become putrid or fetid and alkaline in reaction, the iodophilic bacteria almost disappear, and the volatile fatty acids are greatly reduced. Under these conditions all the digestive

products, proteins, fats and carbohydrates, contribute material for the generation of toxins which are capable of markedly lowering general vitality. The effect of these ptomaines upon the nervous system is usually evidenced by the asthenia and nervous depression which these patients so often exhibit. Symptoms of pathologic colonic conditions will appear in the upper part of the alimentary tract.

Foul breath and coated tongue, coupled with loss of appetite and gastric disturbance, are quickly followed by loss of weight — often very marked. On palpation the area of tenderness can be readily established, and the distention will sometimes be so marked as to suggest a malignant growth. In discussing mucous colitis W. H. Stauffer (Mucous colitis, JAMA, 27 Nov. 1920) emphasizes as its 2 chief causes, infection and incomplete elimination. While he is especially interested in the relation which he has observed between an infected lower bowel and mucous colitis with appendicitis, he remarks that under any circumstances "No amount of dietetic or local medication will have any value until the infection is located and removed. Cathartics add insult to injury, and are mentioned only to be condemned."

In any intestinal toxemia where drainage is impeded we will always find the feces loaded with staphylococci, streptococci and Bacillus aerogenes capsulatus. The number of colon bacilli varies greatly, and I have even seen cases where they were altogether absent. To eliminate the toxin-producing mechanism, we must first remove the material from which the toxins are being generated, thereafter so change the chemical conditions as to restore the normal balance, and by the maintenance of thoro drainage keep the entire colonic area in a condition of vigour and proper function. By filling the intestines with large quantities of fluid which are quickly absorbed into the blood stream, the secretory organs, the liver in particular, are flooded, and the kidneys thoroughly washed out, the entire blood stream being in this way cleared of its impurities.

No matter what form of medication or other therapy it is intended to employ to combat the conditions which have arisen be cause of the infection due to colonic stasis, until the

local conditions in the intestine have been corrected, all such efforts can be at best but partially effective, and usually they will altogether fail. And in many in stances the removal of the infective focus will be followed by immediate disappearance of the remote symptoms, making any further treatment wholly unnecessary.

Not only is the establishment of proper systemic drainage valuable in cases of manifest disease; careful attention to this matter can also greatly raise the health standard even of those who do not look upon themselves as "sick," and in considering preventive medicine, it is certainly fully as important to make a careful study of colonic conditions as it is to examine the state of the teeth. **Upon proper elimination of waste and toxin products depend the health and correct function of every gland and organ in the body.**

Of the many methods employed to restore normal intestinal activity and function, none has proved so satisfactory and effectual as Colonic Irrigation.

The introduction of a warm (50°C) solution into the bowel "hastens the rate of rhythmic contraction", as has been shown by Magnus, Taylor and Alvarez, and it has been my experience that it not only stimulates active downward peristalsis in the entire colon, but that in some patients even the waves of the ilium are made stronger.

Concerning this peristaltic action Alvarez says:

"The gastrointestinal tract is largely autonomous, that is, it carries within itself the mechanism essential to peristalsis. This point cannot be emphasized too strongly, because it seems to me that the failure to grasp it is the great est stumbling-block to further advance in our understanding of the subject. It is undoubtedly true that the extrinsic nerves have much to do with peristalsis, both in health and disease, but it is very helpful in simplifying our problems to recognize that the tract can get along without any outside help or

interference. This should make us the more willing and eager to study the all important local mechanism."

To put this "local mechanism" in proper working order and to keep it so, without the interference of outside agents in the form of drugs, is the aim of proper colonic irrigation. Heretofore it was commonly supposed that a sufficiently heavy catharsis would effectually clear out the intestinal canal, but I have personally demonstrated the fallacy of such a conception.

Following the administration of four ounces of castor oil, with the patient on a "starvation diet" large quantities of residue have been removed by successive, daily Colonic Irrigations, and even after the lapse of 8 days when the patient had taken one and a half ounces of castor oil, with 3 compound cathartic pills followed by 6 ounces of citrate of magnesia, Colonic Irrigation brought away more residue than had been evacuated following the initial dose of castor oil. Where colonic stasis exists it is evident that catharsis is wholly inadequate to establish or maintain efficient drainage.

The following case reports will serve to illustrate some of the conditions which may be clue to foci of infection located in the colon, and the successful outcome of treatment directed toward the relief of intestinal stasis, followed by the correction of chemical conditions productive of bacterial toxemia.

The series, tho a brief one, is interesting and suggestive, in that it shows how physical disturbance in any part of the body, from head to foot, marked mental disturbance or pain in the tarso-metatarsal joints, may be due to pathologic conditions existing in the intestinal tract, and may be entirely relieved when the offending cause has been removed and a repetition of the conditions made impossible.

Case Reports

Diagnosis, Dementia Praecox

Case I — (Referred by Dr. W. Tompkins, New York City): Miss de F., aged 30. Has been constipated for 17 years, and for 6 years troubled with gradually increasing insomnia. Both parents living; mother suffers from constipation and high blood-pressure, and has undergone hysterectomy; father has had an operation for "intestinal trouble".

A sister and a brother are in institutions, being dementia praecox subjects: another sister is "eccentric" and is Subject to constipation, and a second brother died from intestinal ulceration subsequent to extreme constipation.

The patient was suffering from general depression, was unable to digest food or to sleep, and had lost weight. She had been obliged to give up work.

The colon was ptosed, coiled in loops with marked angulosis. Treatment for indigestion and constipation was unavailing. Examination of the feces November 3, 1921, showed marked putrefaction with offensive odor; and the presence of a mixed flora of streptococci, staphylococci, B. aerogenes capsulatus and colon bacilli. The entire colon was flushed with antiseptic solutions, the applications being made daily for a period of 2 weeks. One compound cathartic pill was also administered every day, and at the end of the 2 weeks the patient received a purgative, followed by citrate of magnesia. After flushing the colon with sterile water a planting of B. acidophilus was made in the cecum on 3 successive days, followed by a rectal implantation of the same bacillus.

Flushings and Implantations were continued every other day for 3 weeks, then twice a week for the period of one month, and weekly for the remainder of the treatment.

After the first month of treatment the patient began to sleep well, digestion was markedly Improved, appetite returned and she no longer feared to eat a sufficient amount to satisfy her.

She not only returned to work, but was able to undertake new duties, more arduous than those she had been engaged in before. She became much more cheerful and her whole mental outlook improved in response to the restoration of normal conditions in the digestive tract.

Diagnosis Epilepsy

Case II — (Referred by Dr. L.): C. B., male, aged 28. At the age of 16, following a dance, he had undergone his first attack of grand mal, a second following 6 months later.

During the next year there had been 6 attacks at intervals of about 2 months. During the 3rd, 4th and 5th years attacks occurred about every three months, and from then on at increasingly short intervals. In addition to bromides, various other treatments had been given, such as subcutaneous injections of various medications, Osteopathy and Chiropractic treatment. Both parents are living, father has always been "nervous" and suffered from "intestinal trouble"; the mother has undergone four major abdominal operations and is also subject to "intestinal trouble."

One sister, aged 25, is "nervous" and diabetic, and has intestinal disturbance following an operative intervention. When examined in April 1921, the patient's face was flushed and his abdomen large. The colon was much inflated and the transverse portion ptosed, with a tendency to angulosis at the flexus. The enlarged cecum showed marked atony.

There was indican in the urine and the feces were heavy with B. aerogenes capsulatus and staphylococcus, with a moderate amount of B. coli.

The treatment consisted of 14 antiseptic irrigations followed by 20 implantations of B. acidophilus. The condition improved, but at the end of 7 weeks there was complaint of dizziness and cerebral congestion, and while receiving an irrigation the patient had a grand mal attack which lasted for a half hour.

Four 10 gallons of solution were injected, giving the colon a most thoro "clearing out." To the cecum a mixture of 2 ounces of ichthyol and a teaspoonful of turpentine with 12

ounces of water, was injected. For 12 consecutive days thereafter an antiseptic irrigation was given, then followed by a planting of B. acidophilus.

At the same time the diet was carefully regulated and plenty of out door exercise advised. There have been no further convulsions and the patient's general condition is greatly improved, his whole appearance having undergone a change. He is now enjoying good health.

Diagnosis, Arthritis Deformans

Case III — (Referred by Dr. W. S. Galland): C. F. H., male, aged 32. Pain and swelling in the right knee began in March, 1912; this gradually increased, the wrists and other joints becoming involved 6 months later and after 11 months, a similar condition developing in the left knee. During the year 1913 the patient received hospital treatment, in Chicago, part of the time being under the care of Dr John B. Murphy, MD.

He received glycerine and formalin injections, had both knees and one elbow aspirated, and his tonsils removed.

Later he received various vaccine inoculations and was given electrical, mud, and sulphur baths; none of this treatment produced any modification of the condition. Some temporary improvement seemed to follow the cleaning up of a septic oral condition, but the disease continued to progress. In 1917 and 1918 the patient received osteopathic treatments in New York City, which he believed stimulated him and somewhat retarded the progress of the disease.

In January, 1919, infective foci were discovered in the antrums, which were drained by the removal of the upper teeth. The clearing up of this condition relieved the systemic intoxication to a certain extent, but the patient was greatly depleted and had lost more than 18 kilos in weight.

Treatment by the Schellberg Method of Colonic Irrigation was begun 8 July 1920, and continued thru the year and a part of the following year. The relief of the intestinal toxemia and restoration of normal conditions in the colon was followed by marked systemic improvement. The patient

took on weight rapidly, walking became less difficult, and there was an increasing sense of general well-being. This improvement continued even after he ceased to take the treatments, and his general health is now excellent and the mobility of the affected Joints has greatly increased.

Diagnosis, Probable Malignancy

Case IV — (Referred by Dr. B.): Mrs. K., aged 65, Past history was negative, her health having always been excellent, except for some slight "rheumatism," with enlargement of the finger joints, which has troubled her for the past 4 or 5 years. No symptoms of infective foci except in the teeth, which are in very poor condition. She has, however, been constipated all her life, having taken a laxative every night for more than 30 years.

When referred to me in March 1922, she complained that for the preceding five weeks she had suffered from loss of appetite, almost continual nausea, gas pressure and discomfort after eating, vomiting, constant dull pain in the cecal region, and a sensation of "goneness" and extreme exhaustion. Several doses of laxatives had failed to give any relief. The patient's appearance was suggestive of malignant disease. The abdomen was relaxed and the entire stomach and colon tympanitic (excess flatus accumulated).

Palpation showed a slight tenderness in the cecal region, and in the right iliac fossa was a rounded indurated mass the size of an orange, eat moderately tender to palpation and fixed, so that it gave the impression of a tumor of the posterior abdominal wall or sarcoma of the ileum. Radioscopy showed a normal filling of all the colon except the cecum, which gave a very pale shadow, indicating that the barium meal was not passing thru the cecum in a normal manner, either on account of pressure from without, or because the lumen was occluded by the presence of a foreign body.

A diagnosis of malignancy was made by 3 capable physicians, and all 3 agreed that the colon should, If possible, be thoroly cleared out. At the second treatment I

was able to reach the cecum and by making use of a solution of peroxide of hydrogen and considerable manipulation was able to break up the mass, which proved to be an impaction of feces. The cecum was then irrigated with three gallons of chlorazene solution, this being followed by 2 quarts of collene solution — 1:8000 — at a temperature of 50°C, which was allowed to remain In the cecum.

As soon as the Impacted fecal mass was removed the patient for the first time in 5 weeks experienced relief from her most distressing symptoms. After thoro irrigation and disinfection of the colon her whole appearance was greatly improved, and her general health is now excellent. The mass in the right iliac fossa has entirely disappeared and a second X-ray shows the barium meal normally filling the entire length of the colon, including the cecum.

Diagnosis, Eczema

Case V — (Dr. H. A. Rafsky, New York City): M. Mc., male, operated 3 years ago for cholecystitis and cholelithiasis and removal of the gall-bladder; 2 years ago for ventral hernia. Following the second operation a rash developed over the entire body, which was diagnosed as eczema. The body eruption soon subsided but the eczemic condition persisted upon the dorsal surface of the hands, and was treated unavailingly for 2 years, local applications and X-ray exposures being alike ineffective.

High colonic antiseptic irrigations by the Schellberg method were recently employed and the eczema is improving very markedly. Dr. Rafsky has also been himself a patient under the Schellberg treatment, for relief of fecal impaction In the cecum due to spasticity of the colon, and the successful outcome of his own case has induced him to employ the technic in his private practice." - O. Boto Schellberg, RN, in "American Medicine", November 1922.

Please see: Appendix A

Hydropathy in Appendicitis

"Hydrotherapy in the treatment of appendicitis is by no means new, but I feel sure the subject has not yet received due attention. From the opinions expressed by more than 20 physicians writing upon this subject in our journals, and from a perusal of the articles upon appendicitis in 5 recent text-books of medicine, I gather that the use of water is sometimes ignored, sometimes condemned and never mentioned favourably, except in the most casual way, when it is advised for the purpose of moving the bowels. This, I maintain, is not doing it justice! I shall endeavour to show you, by a report of 7 consecutive cases treated and cured by the use of water alone, that there 18 more in Hydrotherapy than the simple moving of the bowels.

Osier, of Baltimore, says:

> *"Briefly stated, localized pain in the right iliac fossa, with or without induration or tumour, the existence of McBurney's tender point, fever, furred tongue, vomiting,constipation or diarrhoea, indicate appendicitis."*

All of my cases had localized pain in the right iliac fossa, induration or tumour, McBurney's tender point, fever and furred tongue. Some had vomiting, all had diarrhoea or constipation, or diarrhoea followed by constipation.

The treatment in each case was as follows

Cloths, about 4 inches square, wet in cold water, were applied to the right iliac region and changed, if necessary every 3 to 5 minutes, until the pain was completely relieved. Cold, not warm, water enemata were given every 1 to 3 hours, night and day, accord to the severity of the case, and continued until the cure was complete. In reviewing these cases, it is worthy of note that, taking into consideration the comparative severity of the symptoms and the time which

had elapsed between the onset of the disease and the first application of the water, the success of the treatment seems to have been largely in proportion to the frequency of the enemata.

For instance

In Case I, where the enemata were given only every 4 hours and, later, thrice daily, the cure was slow and there was pain from adhesions, lasting for some time after.

In Case II, where the enemata were given steadily every 3 hours, although the symptoms were much more severe, and not at first recognized, the cure was more prompt.

In Case III, perhaps the most acute of the seven, the enemata were given every hour and the cure was still more prompt. In general, the same reasoning applies to the other cases.

In Cases V, VI and VII, in each of which other treatment had previously been tried, the striking and almost immediate improvement consequent upon the change could not be attributed to any thing but the use of the water.

These enemata were not given for the purpose of moving the bowels, although they incidentally had that effect. They were given with the belief that they had some intrinsic influence upon the course of the disease, the proof of this being their greater efficacy when given more frequently, more frequently than could possibly be needed in order to empty the large intestine.

Cold reduces temperature not only by the local abstraction of heat, but also by influencing the circulation of the part. It is likely that some of the water finds its way round to the cecum, but I doubt if much good is effected in that way. The upper part of the rectum lies in the median line at the usual level of the apppendix, and they cannot be much more than 5 cm apart.

Now, the application of cold water causes, at first, a contraction of the blood-vessels, which is soon followed by a dilatation, the dilatation being much more persistent than the contraction. Why may not this reactionary dilatation

withdraw some blood from the region of the appendix and so lessen the inflammation there?

I was rooted and grounded in the belief that as soon as the diagnosis could be made, the appendix should be removed. As to that, I have changed my mind. I now believe that cold water, used early and freely and often, in the manner indicated, should first be tried, and, if the symptoms do not improve within 24 hours, surgical measures should be considered." - Dr George E. Clark, MD in "The Medical and Surgical Reporter", 1895.

Catatonic Dementia Praecox

Report of a Case Showing a Marked Remission Following Appendicostomy With Colonic Irrigation.

"In the article: ''The Relation of Cecal Stasis to Dementia Paecox," published by Bayard Holmes, M. D., and Julius Eetinger, Ph. D., in the Lancet Clinic, 12 August 1916, and a previous article by the same authors published in the Medical Eccord, 6 May 1916, the possibility of a cecal stasis in dementia praecox, with the absorption of certain toxines, was shown to be extremely probable. In the article of May 6, 1916, the statement is made:

> *"That many dementia praecox patients have been operated on for appendicitis at the beginning of their breakdown, and many others have complained for a long time before their breakdown of abdominal disturbance, and they have given expression to toxic symptoms such as attend attacks of biliousness and constipation."*

In the following case of catatonic dementia praecox, which is fairly typical, the onset and course with the physical signs, compel the belief that the patient suffered from some severe intoxication. The remarkable recovery, following the attack of dysentery and the colonic irrigation,

seems to be of more than passing interest.

Hence the report of the following case:

Case No. 6326. Personal History: Patient was 18 years of age on admission.

Present Illness

The onset of the patient's illness began 1 year and 8 months before admission to this institution. He had been playing football at school and returned home for supper complaining that he was so nervous that he could not eat. He trembled continually all the next day and hiccoughed for 2 days. He was sent to a physician who said, "He belched quantities of gas almost continuously.''

He lost 20 pounds in weight. He did not show any marked depression or psychomotor activity. During this time he was indifferent, untidy in habits and careless of his personal appearance. It became necessary to tube feed him. He became suicidal and required supervision. He was noisy and destructive at times and at other times would become rigid, resistive or negativistic. He did not answer questions and did not appear to be interested in what transpired about him. He would assume awkward postures and maintain them for indefinite lengths of time. His weight fell from 134 pounds to 112 pounds. The attack subsided somewhat at the end of 6 months.

The mother states the family physician gave him "Thyrodectine" and prescribed a nutritious diet. After a remission of 8 months the present attack began with symptoms similar to those of the first one, but more severe, and it became necessary to tube feed him and guard against possible suicide. On account of this, he was committed to this institution 9 June 1915. At the time of the judicial inquiry he sat rigid, staring straight ahead with pupils dilated, saliva drooling from his mouth and apparently uninterested in the proceedings.

Physical Summary

While male, age 18. Height, 6 ft. 1 in. Weight, 110 lbs. Poor

state of nutrition. Respiratory system, negative. Examination of cardiovascular system shows rapid heart action (pulse, 130), cyanosis, especially of the extremities.

Gastrointestinal examination shows excess of saliva with its retention causing it to drool from the mouth, and chronic constipation. We also have a history of eructations of gas during the onset of the psychosis. In the genitourinary examination the genitalia were found to be poorly developed. Urinalysis was negative for albumen and glucose. The neurological examination was negative except markedly dilated pupils, which reacted poorly to direct and consensual light and accommodation. The patellar reflexes were markedly exaggerated. Organic reflexes, not involved except occasional untidiness, due probably to indifference.

Summary of Mental Examination

Since being received June 9, 1915, this patient has been stupid and indifferent and does not answer questions. When first admitted, it was necessary to tube feed him. Occasionally he would eat if fed with a spoon. After several days he could be persuaded to eat more, and his physical condition improved to some extent. He began to show a little more interest in his environment, but did not answer questions or volunteer any remarks.

He would sit in one position staring straight ahead until led away. He would retain his saliva until it drooled from the corners of his mouth. He would not co-operate in any way in the physical or mental examination and as a result it was impossible to make a complete mental examination. One month after admission it was necessary to put him to bed on account of general weakness due to his continual refusal to take sufficient nourishment.

He was mute and showed other marked symptoms of catatonia. A note three months later states that the patient continues confined to bed and is extremely emaciated. He does not answer questions. He has periods of constipation varying with bloody diarrhea and an occasional slight rise in temperature. At times he eats ravenously, but he usually

refuses food. He does not talk as a rule and does not co-operate. He occasionally sings for a day at a time, using very profane and vulgar language. The examination of the stools showed amebic dysentery.

This condition did not improve under treatment of 2/3 of a grain of emetin twice a day hypodermically. A note 3 December 1915, states that on account of the dysentery an appendicostomy was performed by Dr. Weber of Peoria. The appendix was found to be adherent to the tip of its mesentery. The adhesion was ligated and divided. The appendix was brought up into the wound and the peritoneum sutured to it.

The muscular and facial planes were sutured and the appendix amputated. A catheter was passed through it and the colon irrigated with quinin solution. A note 19 February 1916, states that patient shows marked mental and physical improvement. He has some insight. States he believes his mind was affected and that he did not come to himself until some time in January. He makes inquiry as to when he can go home and shows a nearly normal interest in what transpires about him.

June 18, 1916, he was discharged as improved. He had gained twenty pounds in weight. His mental condition showed marked improvement. He had good insight, stating that he realized that he had had some mental trouble when admitted here and that he seemed to come to himself shortly after the operation. He was anxious to go home and showed a practically normal interest in everything. A letter from his mother, dated 27 March 1917, stated that his weight was 156 pounds and that he was in better condition both mentally and physically than when he left here.

I believe that a number of appendicostomies with colonic irrigation should be done and the results published. In trying to discover the etiological factor or factors producing this patient's illness we are compelled to consider the possibility of a toxin playing the chief role. Many prominent symptoms given in the above history point to a physical basis for the patient's psychosis, viz.: the rapid heart, dilated pupils, deranged gastrointestinal tract shown in the

eructation of gas and chronic constipation, cyanosis, rigidity of muscles or so-called resistiveness, and the exaggerated patellar reflexes, the latter being found in all cases of dementia praecox. The above symptoms are sufficient to indicate a physical basis on which this condition arises. Close observation of the symptoms of the average case of catatonic dementia praecox will show remarkable similarity to the symptoms of certain cases of infective or toxic exhaustive psychosis.

This fact has led me to report this case of catatonic dementia praecox which is in no way different from the average case. In closing I will add that in other types of dementia praecox the symptoms, both physical and mental, would seem to warrant the assumption that a toxin is the main etiological factor.

The pathological changes found to exist post mortem in the endocrine glands of the dementia praecox subject can best be explained as due to the action of a toxin. This subject offers a fertile field for research and our institutes for research could not employ their time and money to greater advantage." - Dr J. R. Ernst, MD Assistant Physician, Peoria State Hospital, Illinois and former Assistant Physician, Government Hospital for the Insane, Washington, D.C.

Infectious Arthritis of the Tarsometatarsal Joints

"Case I - Mrs. M. L., aged 39. The previous history was negative. Since the birth of her last baby the patient has been obstinately constipated, necessitating frequent resort to cathartics. Recently she began to have recurrent attacks of loose bowels containing blood, and she had such severe pain in her feet that she was compelled to discontinue her work at the sewing machine. Sigmoidoscopy showed the terminal sigmoid and upper rectum studded with fairly large ulcerations. Straining caused scybalae (hardened masses of faeces) to present in view of sigmoidoscope.

Both feet were tender to pressure. The x-ray report showed the pelvic colon ptosed and fixed in the pelvis.

Examination of the faeces showed pus, blood and mucus. The urine was negative. A diagnosis of Infectious Arthritis of the Tarsometatarsal Joints of both feet following ulcerative coloproctitis was made. Shortly after the Colonic Irrigations were started, the pain in her feet diminished, gradually disappeared, and in a few weeks she was able to resume occupation.

The rectum, protected by the sigmoid mechanism above and the sphincter apparatus of the anal canal below, is provided with the valves of Houston, folds of the rectal wall which normally support the faecal column, but when hypertrophied they act as an impediment to the expulsion of the stool, the retention of which causes symptoms similar to the above. Proctoscopy shows hypertrophied valve or valves, removal of which usually reveals ulceration above the obstruction." - Dr Harry Goldman, MD in "The Rectal Tract as a Source of Focal Infection", New York Medical Journal, 15 June 1921.

The State of the Bowels

"In this connection I would like to emphasise the point referred to by Dr. Archdale in 1909 in the following quotation:

> *"Because one is very liable to be misled by reports on the state of the bowels, and because it is most important to have a full knowledge of the condition of the alimentary canal, I think the physician should himself see the motions daily of every one of the acute cases."*

In my experience in nine cases out of ten in which a nurse reports the stools to be normal the report is inaccurate and misleading.

Nurses are not aware that the stool from a healthy subject is either virtually odourless or has a distinctive odour which is not offensive, and is profoundly different from that present in more than nine out of ten of the stools of their

patients. The sense of sight and the sense of smell intelligently applied can often alone be relied upon to give an indication of the degree of putrefaction present in the bowel, but additional information of the greatest value can be obtained by other means. For diagnostic purposes I recommend the use of a double wash-out of the bowels applied as follows:

A purgative enema of 1.250ml to 1.5 litre of plain water at blood heat is administered; this empties the lower bowel, but care must be taken to see that the whole of the fluid so administered is returned.

A second wash-out is then given of the same amount of fluid. If the bowel is healthy this second fluid will come back virtually as administered, the returned fluid will be practically clear and odourless, with possibly a few flakes of mucus and the merest trace of faeculent matter, and on microscopic examination very few bacteria are observed in the film. The extent to which the second wash-out returns rich in faeculent matter, with a very offensive odour and an abundant bacterial flora, is a definite indication of the degree of excessive putrefaction present in the bowel.

This excessive putrefaction may, and often does, occur coincidently with definite catarrh of the lining membrane of the bowel, revealed by large quantities of mucus; frequently the putrefaction is present in marked degree, without any definite indication of catarrh of the lining membrane.

A Gram-stained film of the second wash-out from a septic bowel very frequently reveals a microscopic picture indistinguishable from that of the primary wash-out, the flora being extraordinarily abundant and varied, containing all kinds of Gram-negative and Grampositive bacilli and cocci. Two organisms predominate— Gramnegative bacillary forms, coliform in type (proteolytic group), and Gram-positive cocci of a streptococcal variety (acidophilous group).

A dietary rich in protein and more especially animal protein tends to increase the proportion of coliform or putrefactive group of organisms, whereas a meat-free dietary consisting largely of milk and milk food tends to

increase the acidophilous group of organisms. While we have yet much to learn in regard to the interpretation of the picture seen in a Gram-stained film of an average case, there is no doubt that information of clinical value is provided by systematic clinical examination of the stools in this way.

Simple Melancholia

J. H—, age 54, recommended for admission by Dr. Stark on account of:

1. Depression
2. General weakness
3. Headaches
4. Constipation

First 3 for several years, the last for many years.

Statement from the wife

Until 10 years ago patient was in good physical health and mentally sound, taking more than an average interest in his house, family and work. Ten years ago had a severe attack of neurasthenia; off work for 4 months, this condition occurring in sequence to a severe attack of furunculosis. Patient has never been the same since; for past 3 years has been very depressed, very quarrelsome and irritable; would often refuse to answer questions; had unwarranted delusions about his wife's conduct.

Off work a great deal through illness. Before admission was more melancholic, with occasional incontinence of urine and faeces. Patient's wife, an apparently capable and sensible woman, regarded him as now "imbecile" and unlikely to recover.

Personal condition

Indifferent physique, weight 13 kilos below his normal, depressed and self-centred. Marked pyorrhoea. Heart slightly enlarged, aorta dilated and general arterial sclerosis. Wassermann reaction negative. Blood-pressure 110. Urine

cloudy, containing some epithelial and pus-cells, yielding on culture a moderate growth of staphylococci. Bowels extremely constipated, stools very offensive, showing excessive putrefaction with much mucus, and a bacterial flora greatly in excess of the normal. X-ray examination showed marked colon stasis with proptosis.

Treatment

1) Rest in bed;
2) Light dry diet—no soups, no red meat, abundance of fluid between meals;
3) Correction of oral sepsis;
4) Aperients and intestinal lavage;
5) Psychical treatment;
6) Remedial exercises in gymnasium.

Progress

Within a week patient volunteered the statement that he felt better than he had done for ten years, and he steadily progressed towards a good recovery on the mental side and a fair recovery on the physical. A gradual and satisfactory improvement in the state of the urine and stools took place. Returned to work and to normal family life in twelve weeks, enjoying life, this improvement being fully maintained after nine months. The cardio-vascular lesions and associated visceroptosis will be permanent.

Melancholia

The 2nd case is also one of simple melancholia in a woman of 48, presenting similar features to the first.

Mrs. C., age 48, recommended for admission by Dr. Mowat as being "very depressed, very restless, uncontrollable at home, in a state bordering on insanity." Duration, 4 months.

History of illness

Was worried by a daughter's illness and later by a slight attack of influenza, became depressed and restless and behaved in a peculiar manner, e.g., was found by her husband one morning sitting in an ash-bucket in the. street with half her clothes on, and on another occasion was found by him crouching behind a cupboard, and when asked for an explanation told her husband not to worry her. Previous health good except that in the previous year was treated for her stomach and recovered slowly. Menopause eight months before admission.

Physical condition

Slightly pale and thin, with a characteristic look indicative of severe mental derangement. No evidence of organic disease. Blood-pressure 110. Wassermann reaction negative. Urine rather scanty, cloudy, centrifuge deposit showing numerous catarrhal cells, some pus-cells, and bacteriological examination revealed numerous coliform organisms. Bowels constipated, and after being relieved, stools very offensive, a second wash-out of the bowel being a highly faeculent offensive return, similar to the first. X ray revealed marked stasis in the terminal part of the ileum and in the colon with associated proptosis.

Treatment

1) Rest;
2) Light dry diet;
3) Abundance of fluid between meals;
4) Intestinal lavage and aperients;
5) Psychical treatment;
6) Massage and remedial exercises.

Progress

Rapid recovery, and left hospital for home, against our recommendation, in three weeks. Relapse and readmitted in a month. Condition similar to original though Jess in degree. Distinct suicidal tendency. Under treatment on the original

lines carried out for 6 weeks followed by 2 months convalescence in the country the patient made an excellent recovery, both on the physical and mental side.

Toxic Psychosis

The 3rd case is one of toxic psychosis in a young man, illustrating the development of mental symptoms secondary to simple constipation. Young man, age 20, recommended from medical waiting room as a case of "toxic psychosis."

History

4 days before admission he left home to go to the hair-dresser, and nothing further was heard of him till he was taken in charge by the police on a tram-car in Carlisle, 100 miles distant, where he was inquiring his way to Pilrig, a part of Edinburgh. Two months previously the patient had what his mother called a "turn." He complained of severe pains in the back of head, general trembling, with twitching of facial muscles lasting 2 hours; off work for a week, during which seemed dull and disinclined to speak. For the last two months complained of pain in head and was off work for one or two days each week and then had another "turn" as above. Hereditary history satisfactory.

On admission: Complaint: Loss of memory, 4 days; pains in back of head, 2 months; constipation, 4 months.

General condition: Dull and heavy in appearance with a sallow skin. Moderate degree of pyorrhoea. No evidence of organic disease or venereal disease. Urine scanty and cloudy, showing catarrhal and pus-cells and a few red blood-corpuscles, exalates and bacteria—B. coli and streptococci. Bowels constipated. X-ray examination revealed some retention in stomach and marked stasis in terminal part of ileum and colon.

Treatment

1) Rest in bed
2) Correction of oral sepsis
3) Aperients and intestinal lavage

4) Psychical treatment
5) Course of remedial exercises

Progress

Discharged within four weeks; physical condition very much improved; sallow appearance of skin disappeared, his physical and mental alertness being in striking contrast to his condition on admission. In view of the state of the digestive tract revealed by X-ray examination the patient's margin of safety in regard to a recurrence of mental symptoms is reduced, indicating the need for special attention being paid in this direction.

Other Methods of Combating Alimentary Sepsis

Reference in the above records has been made to the particular methods of treatment of alimentary sepsis made use of in the cases referred to.

These methods in general consisted of a combination of the following: An initial dose of cathartic. In two or three days intestinal lavage was commenced, from 1.250ml to 1.5 litres of plain water being employed at blood heat. It may be employed as a single wash-out for a day or two, or, where not contra-indicated, a double wash-out is employed, this procedure having diagnostic value as well as being therapeutically beneficial. The frequency and duration of treatment by lavage depended upon the results observed.

In some cases the condition rapidly improved, and the lavage was dispensed with or adopted intermittently after a few days or a week or two. In other more severe cases of sepsis the results are less immediately successful; I have seen not a few cases where after from a month to 6 weeks thorough treatment on these lines there was no apparent improvement in the condition of the bowel.

Such cases are, however, exceptional, but it is well to recognise their existence, and to realise that to restore the bowel from the highly septic condition in which it is frequently found to a reasonably normal condition is by no means always an easy matter. Care and good judgment are

required in the handling of patients in regard to this treatment. As a rule when the object of it is explained to the patient there is no difficulty whatever, but with asthenic and nervous patients it has to be used judiciously.

One word of caution is to be added in regard to the employment of intestinal lavage. In certain cases its employment is followed by a certain amount of abdominal pain, suggestive of appendicular irritation. This pain is in many instances doubtless due to a spasm of the colon which is not infrequently present in these patients. It is, however, sometimes undoubtedly due to a reflex or possibly direct irritation set up in the ileo-caecal region by a process of reversed peristalsis.

In the course of the past 10 years I can recall at least 6 or 8 patients, out of probably several hundred medical cases, in whom this treatment was followed by indications of severe appendicular irritation calling later for operative measures. In these cases there had been no symptoms of appendicular trouble prior to the treatment, but in each case the existence of old-standing disease of the appendix was revealed at the operation.

The success of the treatment has to be judged by its influence on the reduction and disappearance of the foetor of the stool and double wash-out, by its influence on the urine and more especially the bacteriuria, and on the general condition of the patient. The question may be asked, "Are drugs of the intestinal antiseptic class of any value as an aid to treatment?"

My experience with drugs of this class generally had been very disappointing. Drugs like salol, izal, dimol, and many others have been strongly advocated as wonderful intestinal antiseptics. I have tested these and some others very carefully, by observing the effects of administration on the state of the stools, on the urine and on the- general condition of the patient and with a negative result. At the end of a few weeks I have found when these drugs were pushed even beyond the full doses recommended for their

use that no improvement whatever was observed in the state of the stools, so far as that can be gauged by the sense of sight and smell and the general bacterial content.

I think I have occasionally seen benefit from minute doses of iodine given three times a day, and also from the administration of kerol, but my experience leads me to attach comparatively little value to any drug as an intestinal antiseptic. Every aperient remedy has a useful indirect influence as an intestinal antiseptic, and the- best is probably calomel followed by saline. Following the teaching of Metchnikoff I have found that a lactic bacillary preparation is sometimes of very great value in the correction of abnormal intestinal sepsis.

The difficulty with this preparation is the securing of an active- preparation which will retain its potency. Many of the commercial preparations are largely inert at the outset, and, even where active, appear to die out very readily. In not a few cases where as a complementary measure of treatment I have employed an autogenous vaccine prepared from the coliform and streptococcal organisms obtained in culture, I am satisfied that marked benefit has been obtained.

In such cases I have frequently observed that the initial effect of the vaccine is to aggravate the condition, the stools being more offensive and the urine more turbid than before, this being followed by a marked improvement in both directions.

As soon as possible, in appropriate cases, I recommend the application of physical methods of treatment to improve the neuro-muscular and vascular tone of all the abdominal structures. I believe strongly in the value of carefully applied massage and remedial exercises as a means of improving the tone of the abdominal and intestinal muscles, and improving the vascular supply and nerve tone of the structures which regulate the action of the liver, adrenal glands and other abdominal viscera." - Dr Chalmers Watson, MD, Physician, Royal Infirmary, Edinburgh in "Journal of Mental Sciences", Vol.69 Oct. 1923.

Colonic Lavage

"Case 26 – A man, aged 41, had had very severe migraine with fits of crying since a child. Some attacks were accompanied by shivering fits and vomiting. The patient was a very typical example of familial chronic intestinal intoxication. He had an acute attack of migraine when the blood was withdrawn. The local precipitation of hydrated protein particles in the walls of the intestinal tract shows why chronic intestinal intoxication looms largest in the picture of disease, the precipitation being caused both by a faulty dietary and by an inefficient elimination.

These few words explain the relationship between chronic intestinal intoxication, mal-co-ordination and mental disorientation. The autonomic nervous system may be involved in its sacral portion to cause that prevalent condition, "nocturnal enuresis". In bad cases involuntary micturition occurs during the day as well as during the night. The reason why the prefix nocturnal is required is simply because the protein particles in the plasma are more hydrated during the night than during the day. Proper dieting, efficient elimination and colonic lavage get rid of enuresis at once.

Case 27 - A woman, now aged 27, used to suffer as a child from giant urticaria and nocturnal enuresis. Later she developed very bad chilblains and a chronic nasal catarrh. When 25 years of age she acquired dysentery and jaundice, and since then her periods had been scanty and she had become "nervy". During these two years she lost approximately 19kg in weight. Her teeth were bad, the tongue was furred and fissured, she had hyper-extended and wide-angled elbows and acro-asphyxia. The patient could not stand with her knees and feet together at the same time, she had central cupping of both optic discs, she complained of hyperidrosis. The patient became a vegetarian. She had a course of colonic lavage with the result that she improved enormously in health and had no more chilblains.

Case 30 - A woman, aged 24, had suffered for some years from chronic constipation and recurrent attacks of Herpes oris. She had to get up 3 to 4 times at night to pass water. The patient's father and mother were rheumatic. The patient had suffered from chilblains affecting her heels since childhood, had had rheumatic fever twice, and bronchitis, furunculosis and Acne vulgaris. Her tonsils, adenoids and appendix had been removed. She presented the cardinal features of inherited disease, and an examination of the abdomen revealed tenderness in the 4 usual areas:

1. Sigmoid
2. Splenic flexure
3. Hepatic flexure
4. Ileo-caecal region

The patient became a vegetarian; she had a course of colonic lavage and of the faecal vaccine, and took lacto-dextrin and an emulsion of Bacillus acidophilus internally. She recovered completely, and was able to sleep through the night without being disturbed.

Case 69 - A man, aged 35, sought advice because: "his nerves were too bad to let him work." He suffered severely from night terrors as a child, and was now a somnambulist. The patient was grossly mal-co-ordinated and generally "double-jointed", which made him an excellent dancer. He suffered from hay-fever, seborrhoeic eczema, and had been operated upon for appendicitis and duodenal ulcer.

He could not stand with his knees and feet together at the same time, he had hyper-extended and wide-angled elbows, gingivitis, a furred and fissured tongue, and an elongated, dropped and narrowed heart. An examination of the abdomen showed marked evidence of chronic colitis. The patient was dieted, had a course of colonic lavage. The patient recovered, lost his nocturnal trouble, and was able to take up his work as a professional dancer.

Case 62 - A woman, aged 43, was brought to the author because for the past two years she had become mentally

unstable and subject to hallucinations. The patient used to suffer from chilblains, she had had migraine and a nervous breakdown with insomnia, between the ages of 18 and 20. During the breakdown her hair went grey.

The patient had been operated upon for lymphadenitis (axilla) and appendicitis. Menstruation began at the age of 18, and the periods tended to be scanty. The patient had a vacant look, an anaemic and greasy complexion, and could not keep her head still. All the reflexes were exaggerated, with the exception of the abdominal, which were absent. The patient was dieted, had a course of colonic lavage, took iron, and calcium. The result was most satisfactory, as the patient was able to take up work 6 months later. If the patient had not been treated she would have to have been removed to a mental home or lunatic asylum.

Case 80 - A woman, aged 37, complained first of numbness of the left thigh; this was followed by weakness of the right leg, and later by loss of sensation when passing urine and faeces. The trouble had been present for 3 years. The patient was fat, she had hair on the upper lip and chin and complained of headaches. She had jaundice when aged 25 and had had several attacks of mucous colitis. The patient had oto-sclerosis; she was never unwell for more than 2 days; she had never been pregnant; her tonsils, teeth and appendix had been removed, and the skin was pigmented as a result of arsenical dermatitis, Nov-Arseno-Benzene having been prescribed without benefit, because the case had been labelled disseminated sclerosis.

The patient had bow legs, her elbows were hyper-extended and wide-angled; she had acro-asphyxia; all the reflexes were increased except the abdominal, which had vanished; leucorrhoea was troublesome; the left colon was contracted; there was tenderness in the regions of the flexures and ileo-caecal portion, and the ascending colon and caecum were dilated.

The patient was dieted, and had a course of Colonic Lavage; she took iodine, ichthyol and thyroid internally and of the faecal vaccine. The patient improved enormously; the nervous symptoms abated, the periods lasted 4 days, and 18

months later she became pregnant. The abdominal reflexes are not infrequently absent in bad cases of familial chronic intestinal intoxication, even when there is no ascertainable lesion of the central nervous system. This case shows the futility of giving a name to part of a clinical picture, because it causes neglect of the patient as a unit, and it makes the unthinking doctor prescribe for that part a treatment, the action of which he does not understand and which may do the patient harm.

Disseminated sclerosis is not a clinical entity; indeed, none of the labelled diseases are. There is no such thing as specific treatment, and in every case the patient as a whole is the premier consideration, not a symptom. Even in classical cases of disseminated sclerosis arsenic is of little or no value, and in the case discussed it did actual harm.

Case 186 - A man, aged 52, sought advice for a duodenal ulcer. The patient suffered from chilblains and cyclical vomiting as a child, he had had eczema off and on for 31 years, had been impotent for over 20 years, and had had rheumatic fever 3 times. He was tall and thin, and had a sallow complexion, the ears protruded, the elbows were wide-angled and hyper-extended, and he could not stand with his knees and feet together at the same time. All the teeth had been removed, the tongue was furred, the optic discs were small and mal-developed, and he had a high degree of hypermetropic astigmatism. The patient was dieted, had a course of colonic lavage, took iodine, ichthyol and thyroid internally. He improved enormously and all signs and symptoms of the duodenal ulcer disappeared.

Case 142 - A man, aged 59, had acute attacks of abdominal pain which had been diagnosed as biliary colic. He was on the point of having his gallbladder removed, but sought other advice first. The patient was a typical example of familial chronic intestinal intoxication, he had suffered from migraine and furunculosis, had generalised arterio-sclerosis, and both fingers and toes were affected by Raynaud's phenomenon. He complained of loss of memory.

His appendix had been removed 8 months previously. Severe shock followed the operation, and he was more or less unconscious for 5 days. An examination of the abdomen showed that the patient had a sub-acute colitis, and this suggested that the so-called attacks of biliary colic were attacks of acute colitis of the hepatic flexure. The patient was dieted, had his bowels opened twice a day, and underwent a course of colonic lavage.

The attacks ceased. The attacks were colonic in origin, and in the author's experience, in over 90 out of every 100 cases diagnosed as cholecystitis, biliary colic, etc., the trouble lies in the hepatic flexure of the colon, and not in the gall-bladder. The patient need not have had his appendix removed, and, judging from the shock which followed the anaesthetic, it is unlikely that he would have survived another operation, an opinion upheld by the blood-picture. This shows marked hydration, consequent upon a long continued dehydration, and before the first operation was performed the hydration was sufficiently pronounced as to cause almost fatal shock following the anaesthetic.

Case 148 - A woman, aged 25, sought advice for Acne vulgaris and furunculosis, from which she had suffered for 4 years. The patient used to have chilblains, and menstruation did not begin until the age of 17. She presented all the usual signs of familial chronic intestinal intoxication. The left colon was contracted, and there were tender areas in the regions of the flexures and the ileo-caecal junction. The patient was dieted, had a course of colonic lavage, and took iron. She improved, and the acne and furunculosis cleared up.

Case 151 - A man, aged 38, was in bed, suffering from what was diagnosed as a duodenal ulcer. The patient was on a milk diet and getting steadily worse each day. His mouth was foul and covered with herpes, and there were ulcers on both tonsils. The abdomen was too tender to touch, and the stools contained much mucus and some blood. The patient suffered from chronic nasal catarrh and rheumatism, having

had several attacks of lumbago and two of sciatica. He had had scarlet fever once and diphtheria 4 times. The patient substituted fruit for milk, had a course of colonic lavage. All the patient's symptoms vanished, and an operation was avoided.

Case 158 - A man, aged 54, had suffered from chronic indigestion and constipation more or less all his life. The patient had had his tonsils, appendix and gall-bladder removed; he had had several attacks of cystitis, and had suffered from various forms of rheumatism. He was nervy and looked older than his years. He could not stand with his knees and feet together at the same time; he had bilateral Arcus senilis, the tongue was furred and fissured, all the teeth had been removed, there was marked central cupping of both optic discs, with venous congestion and arterio-sclerotic changes.

The patient was dieted, had several courses of colonic lavage, took iodine, and thyroid internally. Multiple diverticula are most common in the left colon, and seldom give rise to symptoms. A redundant piece of colon or colonic loop renders colonic lavage impossible, and no more can be done than to palliate the patient's signs and symptoms. Removal of the damaged piece of colon is not to be advised. A single diverticulum may catch the tube and prevent satisfactory lavage being carried out, but it is most to be dreaded when it becomes adherent to the bladder and causes recurrent, or even persistent cystitis, and a colovesical fistula. Small diverticula may harbour stagnant faecal material but, as a rule, they are readily emptied by colonic lavage.

If colonic lavage is properly carried out and instituted before complete degeneration of the nerve endings has occurred, diverticula may vanish and haustration return. While changes are taking place in the wall of the gut, similar changes occur in the mesentery. Speaking generally, the first changes are those of inflammation whereby the mesentery becomes thickened. As the inflammation subsides, contraction tends to occur and this adds to the trouble

occurring in the bowel by interfering with the blood-supply. Piles are a frequent source of worry to victims of familial chronic intestinal intoxication; they are merely varicose veins, and the injection treatment aimed at sclerosing them is much to be preferred to removal by operation. Colonic lavage renders the injection treatment in most cases superfluous, but the patient should be warned that the haemorrhoids will be considerably aggravated at first. A symptom of piles too frequently neglected and wrongly diagnosed is persistent pain in the back. In women this symptom is usually thought to point to uterine trouble, and in men the diagnosis either of fibrositis or of prostato-vesiculitis is usually made.

The following case illustrates these points:

Case 157 - A man, aged 48, had had almost constant pain in his back for 4 years and had had various kinds of treatment. The patient's father suffered from hay-fever and asthma, and was crippled with rheumatism when he died ; one brother and one sister had succumbed to diabetes, and one sister living had severe rheumatism.

The patient had an attack of rheumatic fever when aged 28, which was followed by pleurisy and pneumonia. Nine years previously he had had an attack of gonorrhoea with epididymitis. All the teeth had been removed, the tongue was furred. The left colon was contracted, there was tenderness in the region of the flexures, the ascending colon and caecum were dilated, and the ileo-caecal area was very tender although the appendix had been removed 5 years previously. The patient had very bad internal piles and had been losing blood daily for some considerable time. The patient was dieted, had a course of colonic lavage, took lacto-dextrin internally. The piles were considerably aggravated by the first 6 wash-outs, but, on the completion of the course of 12, they ceased to bleed and were not visible. In addition, the pain in the back vanished, and the patient was able to continue his work, which he had been forced to give up.

Case 160 - A man, aged 26, had a sudden haemoptysis one Christmas, and the diagnosis of pneumothorax was made. A week later he was said to have developed pneumonia, and six months after this a pleurisy with effusion occurred. On several occasions a diagnosis of tuberculosis was made, but this was negatived by an X-ray photograph which showed an outline of what had obviously been an abscess between the lobes of the right lung. Six years previously he had been troubled with boils and carbuncles on the neck.

He used to suffer from chilblains and hay-fever, and had two brothers who were chronic asthmatics and one who had had furunculosis. These two brothers, together with two more, the father and the patient himself had been operated upon for appendicitis. He was grossly mal-co-ordinated, suffered from chronic nasal catarrh, and had had attacks of lumbago and sciatica. The tonsils adenoids and all the teeth had been removed. The whole colon was tender, the ascending colon and caecum were dilated. The patient was dieted, had a course of colonic lavage, took a tonic internally. The patient improved enormously.

Case 167 - A man, aged 55, had had periodic attacks of haematuria for seven years. They usually continued for 3 days but the last persisted for over 3 weeks. The patient's father died of diabetes, aged 57, the mother with obesity, aged 67, one sister from Bright's disease, aged 16, another from colitis, aged 40, and the 3rd from exophthalmic goitre, aged 50. He suffered from rheumatism, migraine and colitis, he was grossly mal-co-ordinated, and was going deaf (arterio-sclerosis).

He had marked Arcus senilis, the pupils were small, all the reflexes were sluggish, and there was generalised arterio-sclerosis. The nails were dry, ridged and hyperkeratotic, The patient was dieted, had colonic lavage, took iodine, ichthyol and thyroid internally, and received injections of the faecal vaccine. The patient improved and has had no further haemorrhage to date.

Case 168 - A man, aged 32, sought advice because he had been refused life insurance on account of proteinuria. He lost his father from cancer of the stomach, aged 65, and his mother from pneumonia, aged 55. He suffered from chronic nasal catarrh, had been much troubled with furunculosis, and had had a mastoid operation performed.

He had protruding ears, could not stand with his knees and feet together at the same time or straighten his elbows, the tongue was furred, and the optic discs were mal-developed. The urine gave a heavy precipitate with salicyl-sulphonic acid. The left colon was contracted, the ascending colon and caecum were dilated, and there was tenderness in the usual areas. The patient was dieted, had colonic lavage, took iodine, ichthyol and thyroid internally. He improved enormously and when examined 6 months later the urine was free from protein.

Case 169 - A man, aged 49, but looking 59, had drunk to excess for over two years, having been much troubled with vasomotor rhinorrhoea and bronchorrhoea. The patient was a typical example of familial chronic intestinal intoxication, and had suffered from chilblains and furunculosis. He had widespread arterio-sclerosis. The urine contained large quantities of protein. The abdomen was too stout to permit of a proper examination. Before the treatment advised was begun the patient had an extra bout and nearly developed Delirium tremens.

This treatment was suggested by the author many years ago, and has proved successful in a large number of cases. If the patient actually has Delirium tremens the treatment should be augmented by lumbar puncture. When the patient recovered he was dieted, had colonic lavage, took iodine, ichthyol and thyroid internally. At the beginning of this treatment the proteinuria increased, and oedema of the ankles, with an erythema of the shins appeared, but, before its completion, all the symptoms had cleared up. Nephritis, considered to be one of the most devious paths in medicine, is in reality one of the straightest.

Case 170 - A man, aged 62, complained of insomnia, loss of memory, and giddiness. His mother died of cerebral haemorrhage, aged 31, and a brother and sister of the same condition, aged 56 and 58 respectively. There were two sisters and one brother living and all had hyperpiesia. The patient had attacks of temporary aphasia and amaurosis, he was old for his years, tall and very thin. The pupils were miotic, and reacted neither to light nor to accommodation; an ophthalmoscopic examination revealed marked arterio-sclerotic changes.

All the reflexes were sluggish, the nails were dry, ridged and hyperkeratotic. Some of the finger nails presented lesions such as are found in psoriasis. There was evidence of aortitis. The arteries were hard and there was no pulsation in the posterior tibial arteries or in the dorsal arteries of the feet. The patient had to pass water every 2 hours day and night, and he complained of sudden choking and sneezing fits, which occurred whenever he was eating. The patient was dieted, had first enemata and then colonic lavage, took iodine and ichthyol internally, and received injections of insulin. The patient improved and is alive to date, 3 years later.

Case 177 - A man, aged 31, had a bad headache one day in April and became unconscious later in the day. He was unconscious for 2 days, and remained confused for a fortnight. Three months later the so-called "uraemic convulsions" re-appeared. The patient suffered from chilblains in the winter, and hay-fever in the summer. He had chronic nasal catarrh, had had attacks of lumbago and sciatica, and was subject to recurrent Herpes febrilis on the left cheek. When examined about a year later, the ophthalmoscope revealed central cupping of both optic discs, arterio-sclerotic changes, and albuminuric retinitis. The patient was dieted, had first enemata and then colonic lavage followed by one injection of the washings of 10,000 million of the Bacillus acidi lactici. The general condition of the patient improved." - Dr J. E. R. McDonagh, F.R.C.S., Hunterian Professor at the Royal College of Surgeons, in "The Nature of Disease", Part III, Section I, 1931.

Chapter 35

The Gymnacolon Institute Case Reports on Colon Irrigation

"I have done some of this work, the machine we use, obtained by us in Germany, which I believe is the only one in this country, and I think it will be interesting to see one of the newest types of Colonic Irrigation Machines. It was invented by Dr. A. de Borosini and he calls it the Gymnacolon. The chair-table is so constructed that the patient can get complete relaxation with the legs semi-flexed. The water can be raised or lowered to regulate the pressure. The rectal tube is of only one-half inch diameter and is inserted about three or four inches. The patient is instructed to make no effort either to retain or expel the water but to relax and let it flow in and out, this continuing for one half to one hour. Solvents may be added to the water, but we prefer tap water as a rule at about 38°C. We have found that patients who had had other methods of High Colonic treatment and disliked them very much are perfectly willing to take this treatment and they get great comfort from it. Certainly it has been a tremendous benefit in many toxic conditions, not only in the psychoses but the neuroses, and in many general conditions. No griping or pain accompanies its use and it has proved an excellent sedative and rejuvenator as Dr. Marshall points out." - Dr. Arthur H. Ring, Arlington Heights, in "New England Journal of Medicine", 8 September 1932.

Testimonials from Patients and Results Obtained

"I gladly take the opportunity to confirm that I had surprisingly good results with the Intestinal Bath. After having to take "every day" any type of medication for more than 30 years, to stimulate the digestive tract and everything failed, I decided to effect the cure with you, and success began after the 5th or 6th intestinal bath. To this day, I have completely obeyed his order to stop taking anything (medication), and I have almost every day the desired digestion, which would certainly be even better if I maintained an even higher diet. I am very happy and I thank you very much." - Signed Mrs. L., Munich, 9 August 1928.

"I suffered from a slow metabolism since childhood, which resulted in fatigue and loss of appetite. My body only demanded the so-called "spicy" food, while reacting in an indifferent way to vegetables. Through the Intestinal Bath procedure according to Dr. Borosini (medical director, Dr. Osborne, Munich), my discomfort has been completely removed. Already the first intestinal bath made me feel fresher and shortly after that, there was a major change in my diet. Now I eat with a good appetite, and above all vegetables. The feeling of disgust for certain foods disappeared completely. The detoxification of the body and the natural function of the intestines went hand in hand giving a cosmetic effect. My face colour has improved a lot, it has refreshed the skin and the psychic affliction caused by a poor metabolism has been completely removed." - Signed. Irmgard, Munich, 10 September 1928

"Several years ago I have heard about the beneficial influence of the intestinal bath in the body, but I did not know that there was the Gymnacolon Bath Institute of Dr. Borosini in Munich, medical director Dr. Osborne. I discovered it by chance and then I presented the first of my great circle of acquaintances. I just wanted to detoxify the

body, otherwise I felt very good. I only have a predisposition to get fat. In fact, the first intestinal bath refreshed me and relieved me beautifully I was surprised at the amount of faecal matter excreted after I always believed I had good bowel movement, and never having metabolic disorders. The intestinal bath, I took several intestinal baths at intervals and discovered a surprising effect. At first, the body slowly thinned, the skin of my face, which tends to be "spongy," became firmer. With a good appetite, I eat much less now than before, I can easily dispense with meals between the hours and the meat. The clean intestine has become undemanding, it no longer needs any stimulation through spicy foods, it prefers the bland diet. Since the result of the intestinal bath was excellent for me, many of my acquaintances, who are more or less sick, consulted with Dr. Osborne and also praised him. Especially, the so unpleasant but that it jumps at the sight "stomach of gases", disappears through the intestinal bath. In any case, it is a preventive measure for all types of diseases. It can even be recommended to healthy people as a beauty and body care, even as a "rejuvenating cure".” - Signed Paula, Munich, 10 September 1928.

“I am pleased to confirm that I am firmly convinced of the pleasant effect of the Intestinal Bath method. Intestinal baths not only stimulate the bowel movement for regular activity, but they affect the whole organism and also have an extremely favourable effect on the cranial nerves. My strong headaches have been removed and I feel especially fresh and elastic after having taken the intestinal baths." - Signed Elisabeth, Langeoog, 10 September 1928.

“I am very pleased to confirm that the 12 Intestinal Baths I have taken at your institute had an excellent effect. The rather advanced constipation, which, despite several remedies, such as Regulier, Brotella, and which became increasingly unpleasant, gave way to an almost regular digestion. Of course, I pay attention to a suitable mixed diet with enough vegetables and fruits. After the intestinal cure

has been around for 3/4 years, you can probably talk about a continuous success of it." - Signed Lieutenant Colonel A. D., Munich, 13 September 1928.

"I am pleased to comply with your request and confirm that I am satisfied with the success of your Intestinal Bath method to this day. Since I finished my cure I do not use any kind of remedies to stimulate the intestinal activity, while I had to use more and more strong remedies before the cure. This improvement, which continues to this day, is something that I definitely attribute to the effect of your baths." - Signed Heinrich, Munich, 13 September 1928.

"I am pleased to confirm with the present observation that the Intestinal Bath method provides me with substantial relief. I had to admit that, unlike my assumption, there were no significant discomforts or pains for the patients." - Signed. Doctor, Munich, 14 September 1928.

"Due to my use of the Intestinal Bath method for several weeks, I confirm with pleasure that this method has had a very favourable influence on my health. The bowel movements became more regular, I felt lighter in the abdomen and the lost excrement found its way out. I also think that, in general, I can say that I have a better mood. Anyway, I can recommend these intestinal enemas based on my experience and I will return to it." - Signed Carl, Munich, 14 September 1928.

"Years of suffering forced me to apply for intestinal bath treatment, which is directed by Dr. Osborne. At first I felt very attacked by the treatment; but after the 6th bath I already felt a good effect, which lasts absolutely. One feels like reborn, completely refreshed and after finishing the cure one has a completely regulated digestive system. Appetite increases greatly, and if the proposals are carried out and the intestine is not burdened by heavy consumption of meat, a beneficial effect may not be excluded. Such general cleaning is recommended to everyone; But those who suffer from

intestinal problems, have to make a cure at the Intestinal Bath Institute. The complete cure is assured." - Signed. Hildegard, Munich, 14 September 1928.

"With the Intestinal Bath method, I have had the best experiences and I can recommend the best treatment of intestinal baths with Dr. Osborne, MD." - Signed Mrs. L., Munich, 15 September 1928.

"Today, after almost 9 months, I feel the need to thank you again for your treatment. Since the war I suffered from rheumatism for years. When the weather changed then you could feel a stunned fatigue. As I had told you, the mud baths had only a temporary rapid success and the many highly praised medicines, for and against rheumatism, have me completely tired. Your method of Intestinal Bath had, from the beginning, its natural application, my full confidence. Now I realize that the treatment, 10 times applied, has helped me enormously and that I saved myself a costly and long spa treatment." - Signed. Carl, Munich, 15 September 1928.

"As a devotee convinced of the Intestinal Bath method, I would like to inform you that the treatment exerted an extremely invigorating and refreshing effect on my entire body every time. After the first bath I felt like a newborn. Thanks to that I am almost completely liberated from bile and intestinal disorders. I also consider that it is the only effective remedy for the prevention of any type of disease. I can only reiterate my sincere thanks." - Signed E. Countess, Munich, 15 September 1928.

"I am pleased to be able to respond to your wish, to express my opinion about the Intestinal Bath Method, since I have personally achieved the best result. Find the individual cure for the healing of a suffering organ; it means luck! In your Institute of the Gymnacolon Intestinal Bath Method, I had the luck to stimulate my intestine almost numbed, to an almost normal activity with approximately 10 treatments.

After each Colonic Irrigation, which takes 2 hours with its meticulousness, the whole body was internally cleansed. The effect is liberating and revitalizing. I would like to mention that this deep cleansing exerts an extremely positive influence on the activity and purity of the skin. I would like to recommend, with the best conviction, the Gymnacolon Intestinal Bath Method, to everyone who suffers, and even to healthy people, in prevention for possible diseases." - Signed Lilli, Munich, 17 September 1928.

"The undersigned took about 8 to 10 intestinal baths, in the months of April to June of this year in the Bath Institute of Dr. Osborne and is extraordinarily satisfied by its effect. Already the first bath provided a feeling of great relief and lasting freshness, which intensified the following baths. The intestine worked without any help on a regular basis, the feeling of pressure disappeared, and despite a good appetite, a decrease in weight was observed. After an intense mental or emotional request, the intestinal bath exerts a pleasant appeasement and strengthening." - Signed. Dr. Phil. E., Munich, 18 September 1928.

"I can confirm that the intestinal bath method as a natural method to stimulate again the activity of bodily functions completely in ruins. The immediate palpable sensation of refreshment and discharge after each application leads to final success with a constant renewal and revitalization of the entire organism." - Signed Elisabeth, Munich, 20 September 1928.

"I am pleased to inform you that the intestinal baths that were taken were accompanied by good results. A prolonged increase in temperature, whose cause could not be determined, disappeared with the intestinal baths and the general condition was excellent." - Signed Ms. I., Munich, 20 September 1928.

"I gladly confirm that I have achieved the best results with the Intestinal Bath Method. Intestinal baths not only have a highly beneficial effect on metabolism, but they are also an excellent means of obtaining thin bodies. I can make the best recommendation for the treatment." - Signed Mathilde, Munich, 23 September 1928.

"I confirm with great pleasure that I was very satisfied with the result of the Intestinal Baths, since afterwards I felt very light and comfortable. I will use them if necessary and recommend them to my acquaintances." - Signed Rudolf, Munich, 25 September 1928.

"The fact, that for part I suffered from exceptionally strong and painful intestinal cramps for years, and that being in treatment with several doctors without any result, and that on the other hand, after a relatively short treatment in your institution, for intestinal cramps and that therefore, the pains disappeared completely and all indigestion was eliminated, gives me cause to thank you sincerely again. It goes without saying that I highly recommend the Intestinal Bath Method in my circle of acquaintances." - Signed Ms., Munich, 26 September 1928.

"Your desire to give my opinion about the Intestinal Bath Method, I am pleased to comply with it, since it provided me with extraordinary services. A long time before the use of the intestinal bath I suffered from a persistent constipation and could only provoke an evacuation of the faeces only with artificial measures, until these also failed and I was in a terrible situation.

Already the first intestinal bath gave me great relief, and after frequent repetitions, the intestine gradually became accustomed to its activity, which also resulted in a clear improvement of my general condition. I will strongly recommend to any person plagued by this misfortune, his method of Intestinal Bath." - Signed Viktoria, Munich, 29 September 1928.

"I am happy to respond to your kind request and I confirm that I noticed a very good and lasting effect of the intestinal baths that I was able to take where you were.

As you know that all doctors consider that my spinal cord disease is neither recoverable nor curable, I am pleased to say that through the intestinal baths my digestion seemed to flow better, with this my physical appearance became very fresh and afterwards I always felt very relieved and strengthened and like a newborn. If this is the case of most people after stool evacuation, then even more with the enema.

The blood becomes more fluid because it is not so loaded with faecal poisons, and that is precisely what makes it happy again. In this main matter, I would like to inform you that the intestinal baths were for me the sovereign measure to help my epileptic attacks finally overcome victoriously; and I wanted to ask you to take note of this fact in your prospect, also for the sake of the many epileptics.

I am surprised that you have not been confirmed more frequently or have you ever had an epileptic in treatment?

Today I say:

"He who leads a simple lifestyle with natural diet, adding to this for a while to make intestinal washes according to your method, has the prospect of seeing his epileptic fits disappear, at least if it is not a hereditary cause, particularly tenacious and lasting If I had known an institute of intestinal baths 5 years ago, time when my affliction began, I did not want to know to what extent even my paralysis could have been effectively influenced, after the rest of my nervous, and general condition it improved so considerably, my mind is considerably calmer through this intense inner purification, yes, that served me more than all psychotherapy.

I believe, that any person having serious and seriously suffering and knowing about this novel issue, what in relation would mean investing such low expenses; he would reacquire his health in such a simple, painless and pleasant

way. That all those who suffer could come to know of your beneficial institution, I sincerely wish your patient, always grateful." - Signed Hans Munich, 1 October 1928.

Intimate Hygiene
The new way to achieve good health and the ennoblement of the body

"The only way to maintain or restore health, to rejuvenate and achieve a physical and mental elasticity goes through intimate hygiene, this is the cleaning and release of body tissues of all the slags and toxins that civilized man accumulates day after day in the body. A clean and strong intestine is for that purpose a precondition. The developed about this knowledge, an extremely interesting enema system, which enables us to let water enter the large intestine by sitting above a container of water. Through repeatedly suctioning and ejecting of water, we are able to clean the colon thoroughly.

This method, requires power of will of intimate cleansing, and is undoubtedly an unparalleled important measure for obtaining freshness, beauty, youth and exceptional longevity. With medicines, poisons and energizing industrial preparations, contemporary man cannot be healed, or get rid of toxins and waste stored through wrong habits of life, but only through intimate hygiene in association with a reasonable way of life and a strengthening of the emunctories of the human body. If those are clean and healthy, then the rest of the glandular system works and with it all the metabolism in a normal and natural way.

Death Resides in the Bowel

It is not just a slogan. The growth of "metabolic diseases" led by cancer, and the fact that after all are related to digestive disorders, has led today to pay more and widely attention to digestion. That one does not reach the goal with pills, laxatives and traditional enemas but that by these

means the intestine loosens and degenerates, it is a reality that they experience, when it is already too late, thousands of people in themselves. These measures and resources never manage to capture the cause, but only fight the symptom, that is to say that they only register momentary successes. On the other hand, the task of a true cure, apart from momentary help and relief, is to strengthen and make the loose bowel organ autonomous.

The Decadence

As for many people, constipation persists for years, which then "fights" from time to time with exciting remedies, but in reality only gets worse; When the defences of the body and all the metabolism through the intestinal toxins are severely damaged, then we should not be surprised that the man ages prematurely, acquiring a tired, withered appearance, that has cheeks, fallen shapes and a relaxed body, being bothered by headaches and neuralgia (symptoms of toxins), having bad breath and an unpleasant body odour and finally having because of that - here we refer to the important work of Ellis Barker: "Cancer, causes and safe contraception" (Editor from Emil Pahl, Dresden) some deadly disease to the liver, stomach, kidneys, heart, lungs, etc., or gout, rheumatism, calcification of veins or even cancer.

Having a bowel movement daily would sufficiently guarantee a regularized metabolism is a very frequent error. Most people, even if "apparently" seem well, they store 1 but 2 or 3, yes, sometimes even more portions of stool. These faecal masses in natural decomposing form a permanent toxic source in the body, rendering it unresistant to diseases and leading to premature ageing and death.

Cleaning and Detoxification of the Intestine

Is in itself, the first indispensable step and the second is the strengthening, revitalization and restoration of intestinal function. This strengthening can only be achieved through intestinal gymnastics, which are also increasingly recognized for their importance in modern medicine. That's

also why the Intestinal Bath according to Dr. August Von Borosini, MD it has been introduced unusually fast, and to convert an atonic diseased intestine into a "bubbling" organ and thereby reanimate again the entire metabolism.

What is the Intestinal Bath?

It is the most complete cleaning mode, and at the same time the most gentle and the most beneficial detoxification and revitalization of the digestive tract. We eliminated by the Intestinal Bath not only the stagnant decomposing of digestive residues present in the intestine, but we leave the intestine relieved detoxified and properly trained. Here lies the enormous advance on methods of obsolete treatments, pills and laxatives with their dangers.

The Intestinal Bath empties the colon "not all at once", as the methods and means used to do so far, in case they still have some effect, but through a repetitive manoeuvre of enemas and natural evacuations. This manoeuvre of interaction of rinsing and evacuation, has the effective result, in the sense of an internal gymnastics. So in the Gymnacolon spa we have a method to train the intestines little by little given that the digestive tract contracts 50 to 60 times during the intestinal bath. The exercise of a muscle leads to its strengthening.

Our Intestine is a Muscular Tube

A lazy intestine means flaccid intestinal muscles, which one tries to solve in vain with massage, quick exercises for bellies, pulling the entrails up, trunk and genuflection, etc. Fighting against the curves and so on. This type of exercise will possibly have its good sides, because it irrigates the surroundings of the intestine and therefore improves its circulation. Today we have the guarantee of extensive exercises of intestinal gymnastics, however, which are quite harmless, and precisely adjustable in particular cases, so that in this way the intestinal muscles can be strengthened and be more resistant.

As a result of this peculiarity, the intestinal bath is the sovereign remedy for constipation of acute and chronic

stools, even in the most persistent cases in which all other means fail, as well as in the case of colitis and in conditions of weakening of the intestine, whose consequence is operations, and for adhesions, worm diseases and haemorrhoids. Also, through the intestinal bath is favourably influenced: blood pressure, diseases of the gallbladder, bladder and kidney, as well as numerous symptoms of irritation of the digestive system (gastrointestinal spasms, irritating nausea, etc.), neurosis heart disease, insomnia and nervous asthma.

The Intestinal Bath has also been shown to be an effective means in the treatment of certain female afflictions, in particular for menstrual disorders, for complaints of menopause and many other disorders of the blood circulation and of the internal function of the glands. Through its general refreshing effect, stimulating and vitalizing the metabolism, the intestinal bath has also shown to be an excellent support for cosmetics. The blood circulation of the skin is rekindled again, the tissue under the skin is irrigated with greater intensity and thus a fresher and healthier appearance is given to the face.

The famous rejuvenating effect that is attributed again and again to the intestinal bath, has its own scientifically verifiable real cause, which consists on the one hand in the healing and embellishment of the skin, and on the other hand, in the improvement of all the body metabolism. For that the intestinal bath becomes again an invaluable tool in slimming cures.

The one that with a suitable diet, that is to say by preference in vegetal foods (of raw foods until mixed diet) avoids obesogenic foods, and also at the same time with sufficient physical exercise regularly takes intestinal baths, prevents of simple and suitable way the obesity and obtains better results than would be possible with irreproachable thinning cures.

Who feeds properly, gets enough exercise and cleanses and detoxifies inwardly with abundance, stays young, handsome and thin. Even healthy people should from time to time wash, detoxify and fortify the intestine, since that

form is the most important part of human hygiene, but especially those people, who because of the exercise of their profession are not allowed to have a natural diet, an essential physical exercise, as well as personal hygiene.

That the intestinal bath brings with it a complete help, is something that anyone who performed such interior cleansing confirms. That intimate bath not only heals many diseases related to the metabolism, but ideally prevents all the aforementioned symptoms and therefore represents an unparalleled refreshing medium. With the intimate bath we finally have a natural, easy, never harmful and decent method for the revitalization of the metabolism, and therefore, a remedy for the fight against the premature symptoms of old age, that is, a serious, impeccable and rejuvenating measure.

The healthy person, who takes intestinal baths, no longer needs the innumerable and partly questionable products of the modern rejuvenation industry, because he achieves his goal in a natural way and ensures through that intimate bath. Because the intimate bath has an active and direct effect on their gonads. The intestinal bath does not present any discomfort and guarantees as a special advantage an absolutely discreet mode of application of the cleaning of the colon.

The upper part of the body remains clothed. The bather can be placed comfortably and at his convenience in the apparatus, during the intestinal bath, which lasts about 30 to 40 minutes, while the bath itself almost always provides him with a delicious wellbeing and which leaves him refreshed physically and mentally.

The Gymnacolon technical team, which is used in numerous hospitals, clinics and sanatoriums, was examined by excellent German doctors with an approving recognition. Likewise, the patients are expressed in a very happy and grateful way about the method, especially those who were cured of serious diseases.

For example, Munich patients testify:

30 Years of Medication

"Literally for 30 years every day every medication, everything failed! Success after the 5th or 6th bath, very happy about this and grateful from the bottom of the heart." - Mrs. L.

A Slow Metabolism since Childhood

"Completely freed from discomforts, better complexion, fresher skin, mental oppression gone." - Irmgard

Sponginess, Flatulence, Rejuvenating Cure

"The skin of my face, which tended to be Spongy, became softer, especially, the unpleasant one, but it is obvious that "gas belly" disappears. Highly recommended as a "Rejuvenating Cure". - Paula

Violent Headaches

"Your intestinal baths influence the whole body. Through those I lost my fierce headaches". - Elisabeth Von

Advanced Constipation

"Advanced constipation. Which despite having taken Regulina and Brotella always more unpleasantly perceptible, 1 year and 3 months, after the intestinal cure with lasting success." - Lt. Colonel A. D.

Reborn, and Regulated Digestion

"After years of suffering as a newborn, a fully regulated digestion." - Hildegard

Tiredness, and Rheumatism

"With rheumatism since the war - Tired of baths and medicines. The treatment helped extraordinarily." - Carl

Biliary and Intestinal Disorders

"Extremely invigorating effect - Almost completely liberated from bile and intestinal disorders." - Countess

Skin Purity, and Numb Intestine

“My almost numbed intestine is almost normally active again. Liberating effect, extremely good influence on the action and purity of the skin." - Lilli

Nervous, and Weight Loss

"Extraordinarily satisfied effect. Durable freshness, the intestine works without any help, the feeling of pressure disappeared, weight loss, reassuring appeasement." - Dr. phil. E.

Increase of Temperature

"For a long time there was an increase in temperature, whose cause could not be established but disappeared, overall condition is excellent." - Ms.

Weight Loss, and State of Mood

"Remedy very exceptional, the desired weight loss was achieved. It has a stimulating and refreshing effect on the mind." - Mrs. H. V.

Painful Intestinal Cramps

"For years my extremely painful bowel cramps were treated successfully, after the treatment of intestinal baths, within a relatively short time all the pains disappeared completely, and all indigestion has been completely resolved." - Mrs.

Epileptic Seizures

"I feel strengthened as a newborn. The intestinal baths, the remedy, which helped me victoriously overcome my epileptic attacks. General condition has considerably improved, quieter mind, served more than all psychotherapy." - Hans

The Gymnacolon Bath method is performed at the Gymnacolon-Darmbad-Institut Munich, special institute for intestinal baths, slimming cures and massages, also in:

Bad Wörishofen	Freiburg i. B.
Berlin	Haarlem
Dresden	Hamburg
Düsseldorf	Karlsruhe
Cologne	Lucerne
Leipzig	Nuremberg
London	Ragatz Bad
Lugano	Wiesbaden

and already it is applied in the most important German clinical universities, as well as in a series of sanatoriums." - Dr. August Von Borosini, MD in "Intimate Hygiene", 1930.

The Intestinal Bath Physiological Procedure

"The intestinal bath is one of the procedures in the physiology of intestinal peristalsis, which allows the intestinal cleansing and detoxification process by means of the gymnastics of the colon in an ideal, adapted and real way, restoring within a short time not only the function of the colon, but the whole mechanism of the digestive system.

Physiology of the Colon

Mechanism of intestinal activity

How important is the intestinal training. It results from the most significant role that motor activity, has upon the intestinal canal.

Mission of the Intestinal Wall

The musculature of the intestinal wall, according to Dr Mayr, MD in his book "Constipation", Berlin 1920, has the mission of:

1. Motor Function: Since it is responsible for the assimilation of food, it is also extremely necessary for the transport of food through the intestinal canal and finally, the evacuation of indigestible substances, and body metabolic wastes.

2. Digestive: Since it takes care of the mechanism of nutritional breakdown quite autonomously; and that can be verified from the tests of Dr Ehrmann, in the first place it makes possible the fermentative decomposition, and it is not necessary to underestimate the importance of the intestinal movements for the glandular function, because they tirelessly worry about the blood regeneration in the intestinal glands, and provide the necessary raw materials for the preparation of valuable gastric juices, it also assume an extremely important role in the evacuation of these juices

from the glands into the intestinal canal.

3. Resorption:

a) First because, the increases in pressure in the intestinal tube, generated by intestinal contractions favour the entry of receptive substances from the intestine into the intestinal mucous membrane (mucosa),

b) Secondly, because the flow and blood drainage that has to continue transporting the assimilated substances, which is possible mainly thanks to the contractions of the intestinal muscles, whose effect has to be considered as that of a simple heart, which exerts its functioning between the intestinal mucosa and the hepatic capillary network, then the intestinal muscles play a very role important that involves:

4. Promote Circulation: The very important importance of healthy intestinal muscles, and also, how important it is, of being able to systematically train, and strengthen, the intestinal muscles, this can be deduced.

5. Protective: because it has an extremely important mission that is to protect, not only the highly sensitive mucosa in the digestive processes, but also the embedded glands, and nerve endings from damage, or from over-stimulation from the intestinal contents.

Apart from the fact that, through this procedure, we release and detoxify the intestinal mucosa, from the faecal matter, we also simultaneously establish the precondition through the recovery and strengthening of the entire intestinal mucous membrane, along with its glands and nerves. The effect of the Intestinal Bath, does not occur only on the large intestine, which is only rinsed, but rather, and that reflexively, especially the digestive canal, and especially on the small intestine, whose laziness plays a significant role in all circulatory congestion of the portal vein, and also in liver and pancreatic infections.

Areas of Indication for Treatment

The area of indication for the treatment of the Intestinal Bath, is an important issue and probably covers all medical specialities, because: It affects all pathological conditions and disorders, in which atony of the colon, or the small intestine plays an important role, as it entails intestinal putrefaction and autointoxication.

It is also worth mentioning the possibility of a Deacidification and Desalination of the body through the Intestinal Bath. In many cases it will work miracles, through cleansing, detoxification and training of the digestive tract, a useful therapeutic resource, rarely disappointing for those who will use it in addition to Hydrotherapy (the cure of water), and dietary, physical and medicinal measures supporting them significantly.

Contraindications

Intestinal washes should be abstained, or the cure of the intestinal bath should be postponed, for a later time, when it comes to intestinal states, with suspected perforation, or waiting for gastrointestinal bleeding, and existing anal eczema. In apoplectic patients, with arteriosclerosis, very high blood pressure together with heart failure and circulatory disorders (for example with Basedow, Graves disease), as well as with nephrites, and nephritis, the follow-up of treatment with careful individualization turns out to be especially necessary. The first precondition for a satisfactory cure is a complete preliminary examination of the patient.

Advantages of the Procedure

The Intestinal Bath especially allows the lightly discharge (physiological) of the numerous defecation acts during treatment, and because during the bowel movements the speculum cannot be expelled, so that the excrements and the wash water can leave the colorectal which always reopens

completely naturally. The patient's situation is extremely comfortable, adaptable to individual wishes and can also be modified, at any time during patient irrigation. Knowing that, it is not necessary to overcome any unnatural pressure of the intestine, during its evacuations, therefore the intestinal bath does not entail any special effort, and is also, very well tolerated by weak and old people, as well as by clients with vascular disorders and high blood pressure (apoplectic).

That during the treatment of intestinal irrigation, the blood pressure (in the numerous evacuations) does not increase. It is a special advantage of this method, which firstly makes possible or makes harmless the treatment whose cases have just been mentioned. In addition to the patient's state of strength, the rinse is allowed to adjust very finely manner, provide in its extension and quantity, and can be easily interrupted at any time, when the colon muscles begin to tire.

Clinical Settings

The client, only needs to be discovered from the waist down, because during the rinse, which is administered in a pleasant heated space, it can be completely covered, and also any risk of cold is excluded, even when the client, as is usually the case, goes home immediately after the intestinal bath. The need to rest after the colon bath, or the need for a longer rest, occurs only with very weakened patients. Here the task of the responsible therapist, through, correct dosing, and gradual training of the intestine, is to preserve the client from all fatigue. For the most part, clients, feel so refreshed and productive, after the intestinal bath, that the therapist should always point out, not to undertake much during the cure. Only in exceptional cases, is it necessary, to let the client rest after the intestinal bath (for example, very old people). Bedridden clients, are somehow, rinsed by the bedside. The extension of a heater, and a weighing tape over the abdomen, avoids the risk of stretching of the colon, and relaxes the abdominal muscles and helps fight spasms.

The Measurement of the Pressure Level in the Colon During Treatment

The measurement of the level of pressure in the colon which is repeated from time to time during the treatment, gives very valuable information about the progression of the healing of the intestinal bath. In the procedure of the intestinal bath method, the patient should evacuate as often as possible. It is no surprise that many patients, those who until now have been able to withstand the enemas without major pain, even those who fainted, to their surprise, felt so good with the intestinal bath, that most of the time they bring books to read in their second bath.

Through the intestinal bath, the tone of the intestine (also the small intestine) is normalized in such a way that within a few weeks a belly full of intestinal gases becomes a completely normal part of the body, just as the atonic distended intestinal knots they recover again a normal tone and muscular walls. Clinicians who prefer the intestinal bath method, have been convinced that the removal or replacement of the water bath through the weighing belt and the heater bandage are extremely adequate, as it also fights spasms and guarantees relaxation of the abdominal wall, still favoured by the comfortable posture of the patient, but which also prevents much better than the water bath from the danger of dilation of the colon. By suppressing the complicated bath which is also embarrassing for many clients, any danger of a cold is excluded, numerous cases, can also be treated precisely because of the suppression of the bath, numerous cases can be treated.

A doctor who suffered from a stroke was treated at the Gimnacolon Institute in Munich.

The results of the intestinal bath treatment were very satisfactory. The rejection of treatment for such cases (even for which dry treatment by means of Enterocleaners seems to be still dangerous) is in fact justified, because precisely this type of treatment in defecation acts entails the abnormal overcoming of back pressure (pressure with the saddle [here

refers to the problems of constipation that riders can have when riding and in German there is only one word for this "Satteldruck" or pressure (Druck) saddle (Sattel) which there is no to confuse with killings) and, therefore, heart failure, stroke, etc., which is not harmless, repeating itself over and over again and as it is proven, it is with considerable reduction and increase in blood pressure, while the act of defecation in the gymnastic procedure under, normal pressure in a completely natural way, and therefore can be performed, since at the same time it benefits the intestinal training.

Therapeutic indications

Intestine

First of all there is the usual constipation, both the atonic and the spastic, the acute and chronic gastroenteritis (of any etiology), but especially after dysentery and amebiasis, anal and rectal inflammation, flatulence, stenosis, inflammation of the push-ups, peripheral cases without danger of perforation, inflammatory tumors of the intestinal wall, faecal tumours, intestinal parasites (especially pinworms), hemorrhoids, diarrhoea of feaces, bowel changes in shape and position, such as Enteroptosis, bloating and increase with gas and feaces accumulation (megalocolon), fractures of the groin, navel and thighs.

The Neighbouring Organs

All states of congestion and inflammation of the organs of the pelvic cavity and pelvis, atony of the small intestine and due to all this entail disturbances in the system of the portal vein, liver, gallbladder and pancreas (many cases of diabetes), as well as infections of these organs by the intestine (Escherichia coli). The many diseases caused by intestinal atony, limited gastritis and duodenitis, such as flaccidity and extension as a result of faecal accumulation in the intestine, stomach prolapse, stomach and duodenal

ulcers, **(very prudent dosage, counter-indication if there are signs of bleeding)**, loss of appetite, chronic intoxication; lead poisoning.

Respiratory Organs

Bronchial Asthma (caused by intestinal toxins and its relation to pulmonary congestion); due to gas distention of the intestine (high leveling of the diaphragm) caused dyspnea (pseudo emphysema), tendency to bronchitis and laryngitis (therefore, for all those who wish to have a clear, persistent and strong voice, singers, actors, teachers and speakers, it is of great importance to guarantee for normal conditions in the intestine).

Heart and Blood Vessels

Arteriosclerosis and Increased Blood Pressure, poor blood circulation (cold feet and hands and fear of colds caused by "bleeding" of the skin), cardiac displacement (due to distention of gas from the abdomen), cardiac hypertrophy, Accentuation of the Second Tone, both via the aorta and via the pulmonary artery (often with divided tones), these auscultation diagnoses are according to Dr Mayr truly typical for intestinal putrefaction, heart cramps, heart pain (as with angina pectoris), palpitations (increased pulse rate), extremely loud heart sounds (due to gas distention due to limited drumming). "Nervous" cardiac symptoms, heart failure and valvulopathies (almost always adversely affected due to constipation).

The State of the Blood

Severe anaemias, by nature especially pernicious, (they are certainly very often in relation to autointoxication), caused by intestinal poisons due to the abnormal composition of the blood.

Uric Acid Diathesis (Hyperuricemia)

The fact that there are relationships between intestinal atony, and gout is hardly doubtful, since constipation is usually a regular finding found in those suffering from gout. Gouty patients, as Dr. Mayr emphasizes, almost always complain of frequent heartburn, belching, rapid feeling of fullness, impalement after eating, ventral hyperdistance, flatulence, haemorrhoids, and the like.

Either there is a constipation for a long time, or conversely such patients have pasty stools, very thin caliber, often viscous (much toilet paper), with a tendency to constipation, or rather diarrhoea with emptying (stool diarrhoea) more or less smelly, hardened faecal matter in the colon, that is often accompanied by considerable disturbances from the stomach and the state of health. Auscultation usually shows signs of atony of the small intestine, distension of ventral gases in the upper half and above the navel, fecal accumulation in the lower part of the small intestine and a more or less spastic and painful large intestine, in addition to a liver (stomach gout, intestinal and hepatic of many authors) very often pathologically altered for palpation.

Those who suffer from gout are often "apparently" well with their digestion, and only by interrogating them with precision can it be said that they suffer from bulimia and that all symptoms of gastroenteritis are also present. What is truly striking, as Mayr continues to report, is the change for the better, when it comes by itself or with the help of a laxative (bitter water, calomelano, enema, etc.) to a more thorough evacuation of the intestine.

These types of bowel movements are always ugly, they contain, along with fine masses of crumbling stool and pieces, which generally fade to darker, usually also grey. All the dejection is very smelly and it is not uncommon that it generates burning in the rectum.

At what point gout is related to intestinal states, it results from the following facts: People suffering from intestinal rot often suffer from joint gout, also gouty knots in the fingers

and articulation and other chronic phenomena of gout are noted. These occurrences come to be caused precisely by the intestinal treatment, however they disappear very quickly in the course of the healing of the intestinal bath, especially in relation to water cures as well as other treatment methods and dietary measures.

Musculature

Loss of muscle tension in general is characterized externally more than anything in the cheeks, calves, breasts and hips, which also causes constipation "circulus vitiosus" and perhaps is related to hypothyroidism due to autointoxication (Dr Mayr, MD), is mostly of intestinal origin, since it disappears very quickly through intestinal baths. What is remarkable at all, after an intestinal bath thanks to a better circulation of the subcutaneous tissue, are the tones of the muscles of the epidermis, which are perceived primarily in the face by stretching the skin and looking fresher. It should also be noted, that consequently through the intestinal baths a tremendous cosmetic effect is achieved which same is welcomed by women.

Antitoxic Endocrine Glands

These glands are most involved in the neutralization of intestinal toxins, and therefore it is easy to understand, that through years of overload, after all they necessarily become inoperative. With this malfunction of these glands, all kinds of phenomena can result, such as Osteomalacia (softening of the bones), Acromegaly (enlargement of: hands, feet, forehead, jaw or nose.

Symptoms include: joint pain, thicker skin, deepening of the voice, headaches, and vision problems.

Complications include: type 2 diabetes, sleep apnea, and high blood pressure), skin pigmentation, myxedematous occurrences, obesity, flaccid states, disorders in the sexual

sphere (see below), manifestations of Basedow (serious disease), etc. Now, if in such cases it is proven that there are dyspepsias, it will be necessary, apart, from Organ Therapy, etc., to resort to Colon Hydrotherapy Treatment. The successes are often impressive.

Joints and Bones

Therefore, from what has just been affirmed, it appears that apparitions of Rickets, Osteomalacia, Acromegaly, Ostitis and Osteoarthritis, etc., with hypofunction of the pituitary gland, thyroid and gonads, or that their simultaneous existence can be proven, may be related with intestinal putrefaction, and that through intestinal elimination, atony can be favoured exceptionally.

That is also really the case, because with the progress of the intestinal cure, when it is mainly associated with massage and exercise therapy, this increase in bone and joint size or other nutritional and metabolic disorders in the bone system diminish considerably frequently, which especially with disfiguring widening of the hands, feet, jaws as well as the nose, under which patients suffer very often emotionally, is of greater importance.

Urinary Organs

Intestinal putrefaction, leads to huge demands on the part of the kidneys, especially when the body's antitoxic glands are no longer up to their task. That intestinal toxins, etc., impregnated with urine lead patients with constipation to inflammation of the renal tissue, is well known. Also in renal concretions are frequent concomitant phenomena of intestinal putrefaction (ureteral stones see below). You should also consider intestinal treatment for kidney diseases, nephritis or nephropathy and pyelitis which require very special care. Also, cystitis (especially colicystitis) is a helpful field for intestinal treatment. Also the "desalination" of those who abuse it is often intensely favoured through intestinal baths.

Skin

In the area of the skin, direct or indirect disturbances caused through Autointoxication stand out remarkably naturally. A pale, dirty grey skin (with a grimy appearance), icteric colouration and the like, or its blue-red colour (in bare parts), caused by paralysis of the cutaneous vessels, pigmentary spots, in addition abnormal effects of sweating, Anhydrosis (lack of sweating), Hyperhidrosis (excessive sweating), Bromhidrosis (stinky perspiration in general), apart from that irritation states, such as annoying dermal itching, visible and lasting scratch marks, hives and prurigo.

Through sweat decomposition due to eczema and acute saliva and phlegm, inflammations of the oral and nasal mucous membranes (and the vagina see below), hair and nail growth disorders, such as hair loss, dull brittle hair are caused, premature greying, brittle skewered nails with whitish spots.

Eyes

Eyelid irritation, stye (small collection of pus in eyelid), iritis, conjunctivitis, corneal disorders, hypersensitivity, rapid fatigue, myodesopsia (eye floaters), glaucoma (seems to be mainly due to intestinal putrefaction). Myopia can also, in many cases, be improved by suppressing existing constipation.

Nervous and Brain Disorders

What is certain is that in the following disorders, intestinal putrefaction plays a role. The Proof: The success of Intestinal Treatment! Disorders in the sexual sphere of man, such as prostatitis, increased erections, nocturnal emissions after sexual dreams, irritable weakness with increased libido, deficient erections, premature ejaculation, spermatorrhoea during going to the bathroom. The headache (also of "rheumatic" type) and migraine, under which patients with constipation suffer immensely,

disappear frequently after the first intestinal bath as if by a touch of magic wand.

Other nervous phenomena are: Slight Fatigue, Tremor and Convulsions (Huntington's Chorea), Hypersensitivity, Herpes Zoster, Dercum disease, Neuralgia, which may be present in Polyneuritis and often considered as "rheumatic" (eg; sciatica can be caused by intestinal putrefaction and especially by irritation from pressure of the full rectum).

Brain concussions and the large area of common mental disorders, which are very often related to intestinal putrefaction are: rapid physical and mental fatigue, idiopathic hypersomnia, insomnia, dizziness, fainting (eclampsia of pregnant women), tetanus-like disorders and epileptiforms, states of depression, feelings of dissatisfaction, discomforts, states of anxiety and many cases considered unsatisfactory as well as "neurasthenics" and "hysterics." The favourable effect of the Intestinal Bath on psychic health is so evident and is unanimously reaffirmed by all patients who feel extremely "relieved" and "released" that the influence of intestinal baths on the vegetative nervous system is considered proven.

Gynaecology

Frigidity, sexual over-arousal, menstrual abnormalities, especially dysmenorrhea and excessive and very prolonged monthly rules are almost always linked with constipation, in any case one way or another with a disturbed intestinal function, and sometimes disappear after a few Intestinal Baths. It should also be mentioned: metritis and endometritis, fluoride, parametritis, retroflexion and uterine retroversion, adnexitis (inflammation of the adnexa of the uterus, i.e. the fallopian tubes or ovaries), etc.

Severe hyperemization of the genital organs, whether due to Intestinal Irrigation or through the use of a vaginal tube, makes the method extraordinarily adapted to the treatment of menopausal states and premature ageing. Even during pregnancy, intestinal baths are indicated in many cases, at least where constipation is detected.

Surgery

Intestinal Irrigations should be done before rectal and sigmoid exams, as well as before laparotomies (Drastika a laxative such as ipomea purge also known as jalape, which often causes severe meteorism disturbances, rapid accumulation of gas in the intestine). The indirect result of the intestinal baths in gallstones and kidneys is highlighted, especially if they are clogged stones (Kreuter).

Thus, in the autumn of 1928, also in Munich, an elderly lady was released from ureteral bone-sized urethral stones causing her discomfort for a long time, which disappeared painlessly through an intestinal bath. In tumours from stool, diverticulosis, extreme enteroptosis, megalocolon as in stenosis, the effect of a cure of the intestinal bath should also be expected.

Diagnosis and Radiography

In fact, through an Intestinal Bath Treatment, many doubtful cases are clarified, through the nature of the evacuated masses. In many cases, where acute meteorism prevents each palpation of the abdomen, the abdominal walls can be quickly softened by an Intestinal Bath. This is not surprising considering the incredible amounts of gases and faeces, which are activated in this by coming to light.

In addition, the Intestinal Bath is of great importance for the radiologist for the prevention of erroneous diagnoses, which are e.g. often caused by considering stool stones or tumours, as renal or biliary concretions (hard solid mass formed by the local accumulation of matter, especially within the body). The Intestinal Bath also helps to clarify unequivocal radiographs, e.g. vertebra diseases.

Finally, through contrast enemas and meals, the large intestine can be observed at work for a prolonged period during the intestinal bath treatment; therefore, valuable diagnostic test results can be achieved. By performing accurate measurement and observation of the capacity of contraction as well as the duration of contractions of the

large intestine and the pauses between each of the contractions during intestinal baths, important evidence about the conditions of the intestine is achieved, which are essential for the assessment of the progress of the healing of the intestinal bath.

Prophylaxis and Body Hygiene

In association with: a sensible Diet and Physical Exercises, the Intestinal Bath relieves of an extremely important means for the prevention of all those conditions caused by constipation, and as we have seen, those that can constitute the most varied clinical pictures. Intestinal baths taken periodically may even, to some extent, mitigate or delay the perishable consequences of an inconvenient lifestyle. After all, the intestinal bath is a measure of intimate hygiene, easy to practice and endures over time, prevents diseases, refreshes and makes civilized man more efficient, which is as necessary as body cleansing." - Dr. August Von Borosini, MD in "Gymnacolon Intestinal Bath Institute", 1930.

Of those interested in the vision and its relations to the colon, a detailed report on a case of loss of vision, and its treatment by Colonic Irrigation, is presented in the Book "Vision the Untold Eye Story", 2026.

Verdicts on the Intestinal Bathing Treatments

Sanatorium of Dr. Moeller, Dresden-Loschwitz

"I am satisfied with the intestinal irrigation apparatus, it works technically like a clock, and the patient at a spa mostly praises the method of treatment." - Dr. Moeller, MD, 6 June 1928.

Medical Order Secret Council, Munich

"I am pleased to inform you that in several cases of colitis, chronic and habitual constipation, that I have sent you for the Gymnacolon treatment, I have achieved very good results with this procedure and that in the future I will always apply it in specific cases." - Dr. Franz Colmers, MD, 15 and 28 May 1928.

Sanatorium Lehmrade, Mölln, Lauenburg

"The intestinal bath has been used for several months with greater success in our institution. In all cases applied, not even one failure has been noticed." - Dr. Oster, MD, 3 November 1928.

Dr. G. R. Heyer, MD, Munich, Specialist in Internal and Neurological Diseases.

"According to personal experience and in situ tests with patients, I consider the intestinal bath, as recommended by Dr. Osborne, as an excellent tool for intestinal treatment. In addition to the mechanical release of the intestine from uncomfortable waste, bacteria, etc., the intestinal bath is particularly curative, since using it correctly, training of the bowel is carried out for proper activity not only a remedy is sought for a symptomatic situation, but a true causal therapy of whose function is achieved. I would also like to stress that (in proper treatment of the patient also from the spicogenic side) this education of enteral functions is not limited only to the intestine. I have just seen particular successes in cases involving the feminine states of sensation (frigidity, vaginismus, etc.) treated psychotherapeutically through the use of several intestinal baths: the patients

in question learned in bowel lavage the relaxation, the release of emotions, let them happen the things, they lost the defensive attitude against the events "in the inferior part to the navel", which they had repressed until then. In a sense, the intestinal bath successfully participated as training in rapid internal readjustment. Because these women with sensory disorders often also present with constipation, in such cases the intestinal bath was doubly useful." - Dr. G. R. Heyer, MD, 14 December 1928.

Dr. v. Hattingberg, MD, Munich, Specialist in Psychotherapy for Nervous and Emotional Disorders.

"I consider the intestinal bath method as a particularly suitable way, to reach the "bowel movement", which causing various disease states in large numbers, induces general relaxation more quickly. Therefore not only in digestive tract disorders, but considering every place where we have to aspire to nervous relaxation in general." - Dr. v. Hattingberg, MD, 18 December 1928.

Professor Dr. Lobenhoffer, MD, Director of the Bamberg Municipal General Hospital.

"I inform you that I have the gymnastic device constantly running and I can only say positive things about it. It's used:

1. To cause rapid, complete and unique emptying of the large intestine, that is, before operations, or in preparation for X-ray examinations and the like.
2. For the treatment of spasms of the colon and colitis, precisely here patients almost always praise the pleasant effect of the intestinal baths."- Dr Lobenhoffer, MD, 4 May 1929.

Dr. H. Hennes, MD, Doctor of Biological Healing Method, Cologne

> *"My previous experiences with the Gymnacolon intestinal bath exceed my expectations. You know, how cautious I was proceeding in the selection of the equipment, which I almost needed a year, to inspect and experience the various devices of intestinal baths, to find the most practical model. I am glad that my choice fell on your device, since it performs the performance that one can expect from it. Above all, I observe excellent general effects in my patients. Therefore, I consider the method a valuable complement to the other treatment possibilities. The possibility of a discrete application is especially praises by female patients. I learned to appreciate the suppression of a full bath as a special advantage. Also my initial fears regarding the appearance of bad smells were completely dissipated by practical experience. In summary, I can say that your device finds my total approval and that I consider it as a significant enrichment of biological healing." - Dr. Hennes, MD, 5 May 1929.*

Dr. Frank Kornmann, MD, Internal Diseases, Chief Physician of the Baths and Convalescence Centres Ragatz-Pfäfers.

> *"I have been very satisfied with the intestinal bath method. The technique is simple and reliable, manipulation is technically easy to perform. Patients are always happy with the procedure. The successes are partially very good, I still haven't had any failures. Of course, this procedure also has its indications, which are mainly in the functional area. Atonic spastic states,*

disorders of the vegetative function of the intestine, states of chronic enteritis, congestive conditions of the pelvis, general states of tension, which are also found in the intestine and perineum, especially in women, They are very favourably influenced. In some cases of spastic constipation, after all possible procedures were unsuccessful, it was achieved by a cure of approximately 15 irrigations during a year, a lasting success." - Dr. Kornmann, MD, 7 May 1929.

Dr. Friedrich Kräger, MD, Hot Springs am Sonnenhang, Dresden, Weisser Hirsch.

"We have learned to value the intestinal bath as an effective complement to our treatment." - Dr. Kräger, MD, 13 May 1929

Dr. Oskar Hieber, MD, Physician for Dietary-Physical Therapy, Wiesbaden.

"My experiences with the intestinal baths are pleased to be able to inform you, that I am very satisfied with the mode of action of the same. Without a doubt, the area of indication for this treatment can be extended to a large extent in the stomach and intestine, as well as in gynaecological diseases." - Dr. Hieber, MD, 15 May 1929.

Professor Dr. Kreuter, MD, Director of the Nuremberg Municipal Hospital.

"We make large-scale use of your device and we are extremely satisfied with its performance. In case of chronic constipation and spastic conditions of the large intestine, it proved extremely excellent. A very

promising field of application is the deeper located ureteral stones, which through rhythmic movements of the intestine are usually induced to move, in which a very valuable enrichment for the use of the apparatus could be obtained." - Professor Dr Kreuter, MD, 23 May 1929.

Dr. Karl Behm, MD, Medical Director, Sanatorium Spessart, Bad Orb.

"The intestinal bath method has provided me with excellent services in a series of several cases of stubborn constipation. In particular, nervous patients with spastic constipation should gradually be accustomed to the procedure, but the success will be good." - Dr. K. Behm, MD, 31 May 1929.

Paulinenhaus Association, E. V. Charlottenburg Medical Institution.

"The application of intestinal baths has become an important therapeutic factor in our institution. We use them both to combat chronic constipation, in which we also record successes in cases with neurasthenic field, as in fermentation processes in the intestine and in inflammations of mucous membranes of the large intestine, in which we have repeated them several times with application of various additives successfully. A part of that we use the intestinal baths on a regular basis for the preparation of patients before operations, especially in cases in which it is needed an indispensable intervention of the large intestine The experience acquired shows that in our hospital we would not give up the equipment of the intestinal bath." - Dr. Ulrichs,

MD, Chief Physician Paulinenhaus, 6 June 1929.

Dr. Stevo Dzamanja, MD, Belgrade, Generalist Doctor for Biological Healing

"I inform with pleasure, that I am very satisfied with the Gymnacolon intestinal irrigation apparatus. In various disease states, I have always used it with good results. This intestinal bath is much more than an excellent symptomatic intestinal cleanser, it is a valuable link in the chain of biological healing methods, its effectiveness is directed against the cause at its root with respect to all types of conditions. Due to the normalization of enteral functions, the intestinal bath achieves the precondition for the natural healing of constipation and its different sequelae, by which the functions of the neighbouring and secretory organs are very favourably influenced, the diuresis becomes stronger, the deepest and freest breath, all the metabolism the more liveliest. Through relief and relaxation in the abdomen, the functions of the endocrine glands, and all other organic systems are also favourably influenced, thereby increasing the life force of the entire organism. With various methods and cures, fast and good healing effects are not achieved, when one does not start treatment with intestinal hygiene and does not strive to maintain normal bowel function throughout the treatment period. The Gymnacolon method, due to its easy application and its unbeatable effect, is one of the best remedies for this purpose." - Dr. Stevo Dzamanja, MD, 6 June 1929.

Dr J. van Veen, MD, Nieuwe Zeeweg, Overveen, Haarlem,

"I am extraordinarily satisfied with the intestinal bath

method, which I have been using in my Physiotherapy Institute for half a year. With the exception of cases of chronic constipation, which generally heal without problems, I have used the procedure in chronic colitis, and in many cases of "flatulent intestinal dyspepsia," where I found a high percentage of definitive cure. The intestinal bath has significantly improved some cases of gallstone disease, which is why I will continue to apply this method along with the usual internal treatments. In no way could I survive without this device." - Dr. J. van Veen, MD, 3 July 1929.

"Since I have had great success with my intestinal bath, the time will come when I will have to install a new intestinal bath." - Dr. J. van Veen, MD, Haarlem, 6 February 1930.

Sanatorium Dr. Riedlin, MD, Karlsruhe, Baden-Württemberg

"Since February, I am in possession of a Gymnacolon bath apparatus and I use it daily for both my clients in the sanatorium, and for outpatients. While I used to apply enemas during my diet and regimen cures, I now use this new device for cleansing and strengthening the intestine and achieved the best results. Patients prefer this type of intestinal cleansing much more than enemas, especially since the entire procedure can be performed without any discomfort and in a decent way. I am convinced that the gymnacolon apparatus will soon find its place in all sanatoriums, clinics and hospitals, where intestinal care is prioritized and where there is the necessary understanding for the promotion of modern nutritional science. "- Dr. R. Riedlin , MD, July 10,

1929.

Dr. Friedrich Rüdinger, MD, General Practitioner, Leipzig.

"An enthusiastic patient of Dr. von Borosini has called my attention to the intestinal bath, and for about half a year I had the opportunity to control the effects of intestinal baths in cases within the practice itself. The success prompts me, to notify you now, that my expectations regarding the effectiveness of the device have been fully met." - Dr. Rudinger, MD, 12 October 1929.

Then Dr. Rüdinger writes on 29 January 1930:

"In my office I apply for a year this apparatus for intestinal irrigation, and I am glad again and again of the acceptance on the part of the patients. And at the same time it had been deplored frequently that this method is so little known, since the number of people interested in this natural way of eliminating chronic constipation is extremely important. Physicians that we are unable to advertise. We cannot point this method to the public as soon as we represent it. It is different if from your side clarifying articles appear in the appropriate journals." - Dr. Friedrich Rudinger, MD

A general practitioner from Munich recently wrote about the device as follows:

"For years I have been following the problem of intestinal cleansing of the body, and I am really surprised to see how things have developed silently. I do not think to exaggerate, if I maintain that today it is

impossible to ignore the importance of the device, such as you have invented it in a very simple and apt configuration, in the future for medical treatments in general. In abundant enemas, no matter how much they are done with skill, nothing can be done in this case. You can never improve or even cure an existing atony. Yes, I have noticed that colon dissections that had been treated before treatment with these so-called "abundant enemas" had become even rougher and more atonic than before, in which it is found, to retain water artificially. But precisely this "behaviour" is one of the main causes of most constipations, and makes the rectum and sigmoid completely insensitive."

Dr. Peter Schmidt, MD, Berlin, writes in his works published in the Paul List edition, 1928, Leipzig: "Das überwundene Alter" (The Age Exceeded), page 347/48, in the section: "Local rejuvenation" (fat removal, plastic surgery, cosmetics):

"I maintain that it is of great relevance, to put all the interest in the functional state of the intestine in all cases of fat elimination. In obese individuals in the intervening years, there is an alarmingly high percentage of insufficiency and irregularity of intestinal transit such cases I proceed in a very active way, I do not trust laxatives, but I try to train the intestine through active gymnastics, the intestinal bath indicated by Dr Borosini, provided us with extraordinary services, the ingeniously constructed device not only It guarantees the complete emptying of the entire large intestine, but also, that through the continuous entry and exit of the fluid lining, for an increased toning of the intestinal musculature. In many cases, it has been possible to

observe the recurrence of spontaneous faeces after only a few treatments, and in those patients who have depended on laxatives for years or decades."

Colon Lavage

"Solution: Common salt, 1 drachm; bicarbonate of soda, 1 drachm; water to 500ml (St. Mary's Hosp.).

Temperature: 38° C.

Quantity: 500ml to 1 litre and the same quantity repeated after evacuation (usually in about 10 minutes).

Pressure: 2 to 2 ft.

Followed by: Warm immersion bath, temperature 38° C., with undercurrent douche at 38° to 41° C.

Intervals between treatments: Alternate days for 2 weeks and then once a week for as long as considered necessary. Colon lavage is extensively carried out at both British and foreign spas. The local mineral water is usually employed. The treatment can, however, be quite satisfactorily undertaken in any place where there is a suitable installation.

Technique

A large graduated reservoir is fixed to a sliding scale at the foot of the couch on which the patient lies on his left side. Leading from the reservoir is a long piece of tubing with a speculum end. This is introduced a few inches into the bowel, and the fluid very slowly allowed to flow in at a pressure of from 1 to 2 ft. After about a 750ml to 1 litre have been thus introduced the patient lies on his back and retains the liquid for 10 minutes if possible.

The liquid is then evacuated through the hole in the couch, and the same amount is given in a similar manner. The results of the injections as regards the presence of mucous, undigested food or any other abnormality are reported in writing to the physician by the attendant. A warm immersion bath with the undercurrent douche is extremely comforting to the patient, and should be

employed when practicable after the lavage.

Therapeutic Indications

In suitable cases it is undoubtedly a most valuable measure. Certain forms of intestinal toxaemia do benefit from a few treatments. Patients express themselves as feeling definitely better and more energetic afterwards. It appears to have a special indication in cases of arthritis due to alimentary toxaemia where there is faecal stasis following abuse of aperients.

The Gymnacolon, Intestinal Bath

This bath has been introduced by Baron A. von Borosini, D.Sc.

Technique

The patient lies comfortably on a specially constructed couch which is placed over a" faecal bucket" or W.C. The water receptacle holds about 30 litres of isotonically-prepared water. Combined with the receptacle is a thermometer and a scale. An electric reflector keeps the water at an even temperature, and also throws a light on the scale. The rubber tube that leads from the receptacle to the patient is provided with a valve which prevents any regurgitation of the injected water.

A specially constructed short tube is placed in the patient's rectum and fastened by tapes to his body in such a way that it cannot be pressed out by the rectal muscles during the act of defecation, though it can follow the rectal movement perfectly. A light rubber sheet is spread over the knees and also covers a frame attached to the couch. This catches all faecal matter and water and conducts them into the bucket or W.C. As soon as the first pint of water has passed into the rectum, there begins a rhythmic evacuation of faecal masses and injected water. Both water and scybala easily pass by the rectal tube, which though being pushed aside, is kept absolutely in position. The fact that the water

absorbs all putrid gases makes this treatment almost odourless. The defecations take place about after every fourth of a quart of water has been injected. The fundamental difference between an ordinary injection and the method just described is that while the patient was told formerly to hold the water as long as possible, the "Gymnacolon" treatment makes him feel at ease to discharge in a perfectly natural manner as often as he wishes. It is claimed for this method that the entire intestinal tract is "energised" in a natural manner and the intestines regain their natural peristalsis. Whenever an ordinary injection or a high colon treatment is taken, the patient is constipated next day. This only happens at the beginning of a course of Gymnacolon treatments, but after 6 or 8 treatments the bowels are evacuated in a perfectly natural manner.

Therapeutic Indications

All cases of constipation, including the atonic and spastic types. Chronic catarrh of the colon. After attacks of dysentery. Many states of congestion of the pelvic organs. Fermentative dyspepsias, states of chronic toxaemia. Psychogenic diseases of the vegetative organs (hysteria, etc.)." - Dr Matthew Burrow Ray, MD in "On Prescribing Physical Treatment", 1929.

Gymnacolon in the Treatment of non-wedged Ureteral Stones

"In a certain number of ureteral stones this therapeutic aid can give good results favouring their elimination: it is an Intestinal Bath." - Italian Surgical Society in "Il Policlinico: Sezione Pratica, Vol.45, Iss. 1-26, 1938.

Chapter 36

The Effect of Drugs on the Emunctory System

"How many students are familiar with the peculiar selection that drugs have in their elimination from the economy of different portions of the Emunctory System, or how this elimination may affect these portions, according to the quantity eliminated. This is well illustrated in the action of the ordinary colocynth apple, which produces in full doses, such drastic purgation as it is eliminated from the colon, and which will in its turn act almost as a specific for the cure of certain drastic diarrhoeas from the colon, provided it he administered in sufficiently small doses to produce its primary tonic effect." - Dr A. M. Wilder, MD in "Transactions of the Medical Society of the State of California", 1882.

An Example of the common Medical Trade "Opinion"

"Certain advertising literature would have the laiety believe that it is more necessary to wash out the lower bowel each day than to wash the superficies of the body. There are those physicians who seem to think much the same. They are focal infection-ists in a group by themselves, for they see at the root of bodily ills, not the tiny apical tooth abscess, but the toxins of intestinal fermentation.

And so patients with nervous and other affections, day after day—until they weary of it—receive their matutinal, intestinal lavations. It's a harmless fad, at any rate. It is interesting to speculate what scientific truths will be seized

upon as therapeutic fads in the next decade. We suspect that studies in food deficiency diseases will furnish one of them." - Editorial of "American Journal of Surgery", November, 1921.

Colonic Irrigations

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And so patients with nervous and other affections, day after day, until they weary of it, receive their matutinal, intestinal lavations. It's a harmless fad, at any rate. It is interesting to speculate what scientific truths will be seized upon as therapeutic fads in the next decade. We suspect that studies in food deficiency diseases will furnish one of them." - Editorial of "American Journal of Surgery", November, 1921.

The Uses of Injections

"Injections, or Clysters, are liquid substances or medicines injected into the lower intestines by mechanical means, for the purpose of promoting alvine discharges, relieving costiveness and cleansing the bowels. They are also sometimes administered to nourish and support patients who cannot swallow aliment, to evacuate the bowels without purging, to affect the system through the intestines, to remove worms from the rectum, to cure other disorders of the rectum, to lessen diarrhoea or dysentery, to alleviate spasms in the stomach and intestines, to produce other medicinal effects in the stomach, when all other curative means are too irritating. Prompt in operation, they are very useful in inflammatory affections of the bladder, womb,

liver, kidneys, and lungs; and for the relief of hysterics, croup, determination of blood to the head, and convulsions; also in urethral strictures, urinal retention, flooding after child-birth, and in removing the after-birth, when nature fails to do so. When warm, they are of the greatest service in cases of suspended animation; and for the purpose of nutrition they alone have prolonged life for over 10 weeks. Carefully administered, they are always safe." - Dr Thomas Lewis, MD in "Rules and Directions for the Employment of Injections in Various Diseases", 1857.

Saline Irrigations and Infusions

"The use of physiologic salt solution for various medical and surgical conditions has become so universal that it may be considered a routine procedure. In the previous article I referred to the fact that Thies had called attention to certain dangers attending the indiscriminate infusion of salt solution.

In 1911 attention was called by Evans (JAMA, 1911) to the dangers attending the indiscriminate use of normal salt solution, without previous knowledge of the condition of the blood-pressure, the ability of the heart to handle large amounts of fluid successfully, or the functional capacity of the kidneys to excrete successfully the large amount of chlorid thus forced into them. He quotes Brooks fatal case and reports a nearly fatal one due to the mistake of giving concentrated (stock solution) instead of normal solution. He particularly condemns its use in the toxemia of acute infections, in pneumonia, and in incompetency of the heart and kidneys. Sokolova (Russky Vratch, 1914, xiii, abs., JAMA, 1914) showed by some experimental work that the injection of large amounts of fluid may prove directly injurious for an exhausted body.

Many other protests have been published from research laboratories against the use of sodium chlorid in cardiorenal cases with chlorid retention, water retention, and many consequent evils. On the other hand, Henkel (Munch, med. Wchnschr., 1910) after careful observation believes that there

is no reason to refrain from saline infusion even when there is edema, or heart defect, or nephritis. He has made much use of salt in eclampsia and has never witnessed harm but rather benefit.

An interesting article has appeared by Trout (Surg., Gynec. and Obst., 1913). As a result of correspondence with 232 hospitals, he ascertained that the method of preparation of the so-called sterile salt solution varied from careful attention to the most minute details and the use of potassium, calcium, and sodium chlorid in varying proportions, filtered and sterilized, to the simple placing of two teaspoonfuls of table salt in 1 quart of tap water. Furthermore, following the directions of preparation given by the majority and using the amount of fluid said to be absorbed by the rectum by many, there would be forced into an already weakened patient in the space of 24 hours the average salt consumed as a condiment by a normal man in one month.

For these reasons and because of the improvement in some patients with nephritis when placed on a salt-free diet, Trout believes that ordinary tap water is just as efficient in the relief of thirst and absolutely without any untoward effects." - Dr George P. Muller, MD in "A Handbook of Practical Treatment", Vol.4, 1917.

The Value of Colonic Irrigation

"Bastedo wrote: "In some circles there has been much criticism of the use of irrigations in 'mucous colitis' but I have been able to relieve many patients who have been denied the advantage of irrigations by physicians opposed to the procedure." Bastedo contended that colonic irrigation "leaves the colon more or less empty and contracted and thus exerts a beneficial effect on its blood supply and its tone" and that "the charges that irrigations do harm by removing normal mucus, by lowering the tone of the bowel and by producing colitis are without foundation." - Dr Frank H. Krusen, MD, in "Handbook of Physical Medicine", American Medical Association, 1945.

The Colon as A Focus of Infection

"That the treatment of the colon is of great importance has been recognized by the profession in its continual administration of cathartics and employment of enemas, rectal irrigators, etc. It cannot be denied that the occasional employment of one of the least irritating cathartics in the treatment of an acute and sometimes of a chronic condition is of great value.

However, in the ordinary treatment of a stasis of the colon, cathartics, when used alone, are mentioned only to be condemned, since they only serve to further irritate an already irritated colon and to stimulate a spasmodic action that leaves the muscular tissue more exhausted and weakened than ever.

Often the very indication for colonic therapy is the fact that the patient has continually taken cathartics over a long period of time in necessarily

ever-increasing doses until the colonic tract has arrived at a point of muscular exhaustion where nothing will cause it to function.

It is essential that one attempting to administer colonic therapy should be well versed in the anatomy and physiology of the colon.

Who attempts it must have acquired the proper training and be fully conversant with all of the circumstances which may arise in the course of a treatment.

One, upon occasions, encounters patients whose colons have reached an unbelievable state of irritation and whose bowels at the same time are firmly impacted with hardened feces. The operator will be called upon to exercise all of his skill in attempting to maneuver through the intricacies of such a situation.

It might well be stated at this time that results achieved are often nothing short of miraculous in the instant disappearance of symptoms of years' standing.

At many hospitals an enema is routinely administered before an operation.

It would seem to the author that a colonic irrigation would be much more useful in this respect.

As a post-operative measure, the treatment has likewise great value. Where there is any evidence of sluggishness of the bowel, the patient's condition can be greatly improved and his convalescence hastened by thoroughly cleansing his colon and improving his elimination, which has a tendency to be none too good at best while he is confined to his bed.

Many patients following an operation experience considerable nausea, vomiting, and gaseous distention. These manifestations may be rendered less severe and less frequent by gentle irrigations of the colon, and the improvement in body chemistry will likewise hasten convalescence, and eliminate to some extent the possibility of a recurrence of the disturbance where such disturbance has been to any extent occasioned by the colonic condition.

It will be found that with an intelligent application of the treatment, patients will sleep better and gain more rest, and will be rendered much more comfortable during their remaining days.

The author has two particular cases in mind that received a great deal of benefit from a short course of colonic therapy. Indeed, their distress was lessened so greatly that it was not necessary to resort to the use of narcotics.

In the treatment of the average case of colonic stasis the usual procedure is the administration of eight to twelve daily treatments to thoroughly empty and cleanse the sidewalls and pockets of accumulated waste and approximate a sterilization of the gut with special reference to pathogenic bacteria.

After the second or third laboratory report discloses that the bacteriological situation is being righted, implants of acidophilus and bulgaricus B are made directly into the cecum.

These implants consist of four ounces of heavy culture, grown in a special culture medium, added to one dram of lactose and a quart of water.

The acidophilus implant is given at every treatment throughout the rest of the course; that is, daily for 3 or 4

days, then every other day for a week, then twice a week, once a week and finally once a month.

The beneficial effects of these treatments are many, but they may be classified under 2 heads.

The muscles are gently exercised and their tone improved. When a cecum is finally filled, a natural gentle and normal peristaltic wave is established from right to left, in order to cleanse the colon of its accumulated content and as the treatment progresses the mucosa of the colon is gradually restored to a healthy condition, its muscular tone is improved, its bacteriological flora is changed to avoid future putrefaction, the previous flow of toxic material into the blood-stream is halted and an instantly improved condition may be observed.

It should be noted, however, that all cases are not to be regarded with an irrigation complex. Even when indicated, we often encounter chronic situation in which there is present a markedly altered bodily chemistry, the correction of which involves considerable time and not infrequently necessitates resort to the additional therapeutic measures, such as physiotherapy.

Colonic Therapy is not a cure-all, but it strikes at the source of human ailments more accurately than any other therapeutic measure. The desirability of implanting acidophilus in the colon has long been recognized, but considerable difficulty attends such implantation -which is undertaken through the mouth.

The acidophili, when administered in this manner, are often weakened and de-habilitated upon arriving at the colon and the oral implant is restricted because of the limited medium of intense transmission.

More appropriate to term them "colonics," for many of these patients are merely sufferers of colonic stasis in a greater or lesser degree, and it is surprising to see their "nerves" disappear during an intelligent treatment of the colon. This type of patient that complains of depression, loss of vitality and whose symptoms do not seem to correspond with a definite symptom complex is many times greatly benefited by a correction of a sluggish colon.

The writer has several in mind that seemed to gain a new outlook upon life and who accorded their aches and pains considerably less attention following the treatment, and concentrated more upon their economic or social life.

Another class of conditions in which the investigation and treatment of the colon is definitely indicated is in rheumatic individuals. Stoner, in reporting the management of 140 cases of arthritis, states that "Every gross focus of infection should be removed.

Physiotherapeutic measures should be resorted to as a routine, including hydrotherapy, local application of heat, baking massage (when not contraindicated), colonic irrigations, ultraviolet ray and diathermy."

Snyder states that "Since adding colonic irrigations to the older forms of therapy in subacute and chronic arthritis, the clinical results have definitely improved."

Lyon recognized its value in the treatment of diseases of the biliary tract.

The writer from his personal experiences has definitely concluded that a restoration of the chemical balance of the eliminatory function of the colon should be foremost in the treatment of what appears to be a general toxic condition.

In freeing the bowel of its residual content and terminating the flow of the toxins and bacteria into the blood-stream, the individual is afforded an opportunity to create a resistance and in effect to cure himself.

If this is accompanied by a stimulation and restoration of the tone of the muscle wall of the bowel." - Dr Lynn J. Walker, MD, in "International Journal of Medicine and Surgery", June 1931.

Toxemia in Nervous Diseases

"Medicine of today teaches us many things that were not considered of any value in the medical course of 30 years ago. One of the things we were told then was not to worry about a patient becoming constipated, as nature would attend to that; in fact, that the bowels would look after themselves.

We can all of us recall the old views that were held by many prominent medical men that the blood did not take up poison from the waste in the system, and that no danger was imminent from a constipated state. I thought of this when I heard a physician say but a short time since, that he had never known a headache to arise from a condition of so-called "auto-intoxication."

In an article on "Recent Researches in Mental Medicine," by Dr. L. Vernon Briggs of Boston, he quotes from a Morrison lecture that:

> *"General paralysis has been on the increase both in Great Britain and abroad of late; that it is a disease about which the public understands almost nothing; that it is by them merged with other forms of insanity which even in this age are looked upon as a mysterious and fatal visitation of a nature entirely different from that of disease as they comprehend it. It has been found that antisyphlitic remedies have no beneficial effect, and therefore, that the disease is determined, not by the direct action of the syphilitic toxins, but by the secondary auto-intoxication which may follow this action."*

He also cited Dr. MacPherson's opinion:

> *"That general paralysis is a disease directly due to poisoning by the toxins of bacteria whose point of attack*

is through the gastric and intestinal mucous membrane. There is evidence that the bacillus coli is one at least of the organisms concerned in the production of the toxemia."

He also quotes from Clouston's "Causation of General Paralysis" under the head of the toxic-bacteriological theory:

"That is the latest, and it is now certainly in the ascendant, both on the continent and in this country. MacPherson gives it the weight of his authority, while Ford Robertson has been in this country by far its most brilliant, enthusiastic, and convincing advocate. He admits that to begin with, there must usually be a predisposing cause such as syphilis, lead poisoning, or alcohol, and he might have added mind-strain from over-rush and traumatism; but none of these could have caused the disease by them selves. The real essence of the matter is a specific toxin acting on the brain cortex."

I have always maintained that general paralysis was not caused by syphilitic infection alone; and if, as MacPherson states, it is a disease directly due to poisoning by the toxins of bacteria whose point of attack is through the gastric and intestinal membrane, it emphasizes the importance of my subject in relation to mental disease.

Thirty-five years ago it was understood that a case of general paralysis seldom extended over 3 years. The demented condition that is a feature of this disease may be largely responsible for a part of the lack of personal attention to the bowels, and where this condition of dementia and constipation exists in a paretic, 3 years is the usual limit of time. Where, however, the bowels are looked after, the patient does not emaciate so rapidly, is stronger physically, gives less trouble, does not have the number of apoplectiform seizures and bed-sores that are found in the 3

year class, and lives 3 or 4 times longer than they did 30 years ago. The physical results of a toxemic condition are shown objectively in a fairly uniform manner in the dry, sallow, unhealthy skin and eyes, bad breath, coated tongue, dyspeptic disturbance accompanied by flatulence, constipation, and marked at stool in putrefactive changes.

Even the perspiration itself is peculiarly offensive, the urine scant, high-colored, and in extreme cases ammoniacal, and containing sediment. Probably the most general indication of a toxemic condition is the presence of indican in the urine. In pronounced cases the stools are dry, hard, and black in colour, and very offensive as to odour.

When such conditions of imperfect elimination exist as have been briefly enumerated, the results of this toxemic state is reflected directly upon the nervous system and mentality of the patient. It is exhibited in a manner that finds the everyday duties of life becoming irksome; that finds it hard to begin anything that needs to be done, and the zest of life gone out. There is a feeling of "what's the use", and a spirit of absolute inertia settles upon the victim.

The affection for friends, the love of anything that once was held dear, is lacking; and depression, sleeplessness, restlessness that is frequently without reason, and worry that is constant, robs the sufferer of the joys to which he is rightly entitled. Whatever the cause, these symptoms may be wholly or in part responsible for a consistent line of symptoms in any form of mental disease during some period of its course.

We know that a nursing mother should not attempt to nurse her child when she is disturbed by any profound emotion; and that cases are on record where infants have gone into convulsions, and even met with death, whose mothers have ignored this law. This illustrates very directly the influence that the emotions have upon the secretions. Each and every emotion that a human being may have creates some bodily or functional change. Ardour, hope, and enthusiasm give vitality and strength to body and mind; while apprehension, fear, and worry, rob one of strength, and appetite, and the power of caring for one's self. The

long-continued habit of worry creates a change in the powers of assimilation and nutrition, and causes a lessening of the natural secretions of the body; and if continued long enough, produces depression of spirits and melancholia, in which the ability to sleep no longer exists, the ability to accomplish things has passed away, and a mental condition of hopelessness which no one who has not seen, can intelligently appreciate. And this condition is accompanied by a bodily state of emaciation, dry skin, restlessness, and constipation that is most pronounced. Where elimination has not received the attention it deserves in these cases, a toxemic condition arises in which the odour from the body cannot be successfully counteracted. No amount of external bathing will accomplish it, as the respiration as well as emanation from the pores is saturated with the poison. Apoplexy may be apprehended, and bed sores, as degenerative changes take place rapidly. At autopsies performed on this class, the whole intestinal tract is found dry, the bowels impacted, and putrefactive changes are almost immediate.

In the capacity for the absorption of poison, the personal equation and predisposition must always be considered, as one person is more liable to be influenced by toxins of one character than by another, and the effect, consequently, of the same toxin on different people will be dissimilar. I know of nothing that is more likely to induce an attack of apoplexy in one with atheromatous vessels than long-continued constipation; and remember, that these blood vessels have become diseased on account of imperfect elimination. In acute mania, auto-intoxication is one of the most important things to look after, and its correction brings most satisfactory results.

To illustrate the advantages of elimination as found by practice, take the cases of delirium tremens treated in one hospital. Without any effort at elimination, 16%, died from delirium tremens. Where free elimination was obtained on a similar number of cases in the same length of time in this hospital, no cases of delirium tremens passed away. In cases of neurasthenia, arising as they generally do from nervous

overstrain in which there has been a great deal of worry, the condition of the bowels play a very important part; and when this has been attended to early in the disease, the course becomes much shorter. A friend of mine who is an enthusiast on the subject, and who lives in a typhoid section of the country, has a record in typhoid fever of 98%, of recoveries with no delirium, no perforations, no haemorrhages, and a duration of the disease rarely extending 3 weeks. This statement will seem strange to those who do not appreciate, and who have not practiced elimination, yet this simply hints at the possibilities where free and thorough elimination is resorted to.

A case in point is one of a nurse who complained of fatigue, severe frontal headache, loss of appetite, and in the evening of attack, had a temperature of 39° C., but after sleeping, she felt rested, and resumed her duties the next day. This condition recurred for 3 days when she was compelled to give up work, and go home, owing to marked physical prostration, and high temperature. At the time her symptoms pointed strongly to typhoid fever, but blood test on the 5th day was negative. The following day the patient complained of severe pain in the region of her appendix, and tenderness over the liver.

In the evening her family physician diagnosed her trouble as "phlegmonous abscess of the liver," but being in some doubt, he called a surgeon who claimed that it was auto-intoxication, and that no abscess was present. At 8:00 AM she had a sub-normal temperature of 90°F, hands and feet cold and clammy, pupils dilated, and her general appearance was that of shock. At 4:00 PM, temperature varied from 103° to 104°; and at 8:00 PM, the same. At midnight it would run as high as 105° to 106°.

At this time the patient was delirious and restless. Her pulse during this entire period was seldom below 100, and was weak and intermittent, and the surgeon who took charge of the case recommended normal saline enemas, one gallon at a time, temperature 110°, every four hours during 24 hours. Colour of the movement dark brown, hard, and very offensive. This condition lasted for 48 hours. At the 3rd

day, after colonic flushing, the colour changed to a light yellow, but the odour was unchanged until the 10th day.

On the 12th day the saline enema returned clear, and a small amount of faeces. Improvement from this time on was slow but steady; and on the 16th day of her illness she sat up, and is now in good health and at work again. I wish, however, to quote some of the masters in medicine, whose especial work has entitled them to respectful recognition wherever progressive medicine is studied.

Dr. Emanuel Mendal, MD in "Text Book of Psychiatry", 1907 says:

> *"Auto-intoxication, through affections of the liver and kidneys, undoubtedly plays an important part also in the development of mental diseases."*

Dr. L. Vernon Briggs, MD, Physician to the Mental Department of the Boston Dispensary, in "Consideration of Auto intoxication and Auto-infection as Cause of Various Mental Disorders," 1905 says:

> *"Auto-intoxication is a poisoning of the system by the products of disturbed metabolism, and these products may be abnormal in character, or normal in character and abnormal in quantity. Auto-infection is due to the presence within the body of some form of bacterial life, the symptoms representing part of a general toxemia, and it is probable that any of the infectious organisms may produce such a toxemia. We all know that normally the food principles that are necessary for the nutrition of the brain and other parts of the body are absorbed from the stomach and intestines, then carried by the circulation to the various parts of the body, leaving the debris, containing very little nutrition, but much poisonous and effete matter to be passed on and*

evacuated. With a disturbed metabolism, poisonous instead of nutritious elements are absorbed, and the nutritious are evacuated. At the same time in certain cases, other organs are disturbed in their action. The bowels become constipated for want of bile, pancreatic and other juices; and in young women the menstrual molimen often ceases, and such debris as is usually thrown off at that time is absorbed into the system. Examination of the urine in many cases shows a disturbed metabolism. In the infections, as is now held regarding rheumatism, it is probable that any of the so-called infectious organisms may lead to a toxemia in which the brain as well as the glands, joints, eyes, and other organs may be involved. We do not yet know that some of the forms of auto-intoxication are not caused by a microbe, and that folie circulaire is not caused by a sporuliferous protozoon which divides once in 3, 6, 9, or 12 months instead of in 1, 2, 3, 4 or more days, as in the case of malaria. It may be going beyond this paper, but as is hereinafter expressed, if scientists had been satisfied with heredity as the cause of phthisis, the tubercle bacilli would never have been discovered. So, also, in mental diseases, heredity in many cases is an inadequate cause."

Kranski, in his study of epilepsy, says that on the days it attacks, or just preceding them, the output of urea is greatly diminished. In this condition of disturbed metabolism, the system is supposed to force ammonium carbonate instead of urea. This compound gives off ammonia, which Kranski believes causes the fits. Again, Mott, Halliburton, and Donath believe that the alkaloid cholin found in the cerebro-spinal fluid in many cases of epilepsy, locomotor ataxia, paretic dementia, brain syphilis, and brain tumour is the cause of disease in many people that are afflicted with these troubles.

By injecting cholin into the cerebro-cortex of animals Donath has produced localized and general convulsions in them. By the injection of a salt solution no such convulsions have been produced. If these observations are carried on still further with the same results, epilepsy will be classed among the auto-intoxications, with the result that some anti-toxin may perhaps be found to help it.

Dr Frederick A. Peterson in his third edition says:

"Accumulations of deleterious agents in the blood in such quantity as to affect the nervous system, (e. g., carbonic acid and the poison of diabetes and of uremia), have been long known to medical science, but the more mysterious poison produced by disease in various parts of the body, by fermenting and putrefying substances in the alimentary tract, and by some of the acute infectious fevers, have only of late taken an important place in the etiology of the psychoses. We do not yet know how frequently auto-intoxication from absorption of intestinal poisons determines insanity, but the facts thus far collected point to the origin of a considerable number of cases from this cause. These cases are usually of depressed type, but sometimes maniacal. Researches in the physiological chemistry of digestion, as well as observations in many pathological conditions, have substantiated that auto intoxication from the absorption of poisonous substances generated in the alimentary canal by putrefactive and fermentative process is not only a real thing, but a frequent factor in the etiology of a number of nervous disorders, such as headache, neurasthenia, hysteria, neuralgia, and even graver maladies like epilepsy, melancholia, and mania. It behooves us, therefore, in these diseases, to investigate

carefully for evidence of any such cause. Periodical or constant attacks of gaseous diarrhea are somewhat indicative of this condition. Frequently, the condition of the bowels furnishes no information of the actual state of affairs. Recent researches tend to show that an excess of ethereal sulphates in the urine (indican) in connection with other symptoms is a good index of auto-intoxication".

Dr. Allan McLane Hamilton, in "The Connection of Autotoxis with Certain Common Forms of Insanity", Proceedings of the Royal Society of Medicine, 1896, says:

"From the data obtained from all available sources, my own cases and others, it would appear not only that the ratio of the sulphates between themselves and to the urea, and the presence of indican in considerable amount, are indications of intestinal putrefaction which, no doubt, influence the course of various insanities, but that a large increase of the combined sulphates has much to do with the genesis of various psychoses."

His conclusions are:

"1. Urines rich in indican contain very little or no preformed sulphuric acid, and are toxic.

2. When the sulphate ratio is materially changed, it is likely to indicate autotoxis in connection with an increase in the amount of combined or etherial sulphates.

3. Such conditions are generally found with acute insanities, in which rapidly developing symptoms occur.

4. Fugacious and changing illusions and hallucinations, unsystematized delusions, confusion, and vergigeration in connection with insomnia, pallor, intestinal indigestion, constipation, and rapid exhaustion are due to autotoxis.

5. Paranoic states, or those in which concepts are the

features, chronic stuporous conditions, and certain forms of dementia have little to do with the formation of intestinal products of putrefaction.

6. Various post-febrile, traumatic, alcoholic, or drug insanities are those in which autotoxis is most constant.

7. The variation in the excretion of combined sulphates keeps pace with the changes in the progress of an established insanity, access and epileptoid attacks being directly connected withputrefactive processes."

Dr. R. von Krafft-Ebing, MD in "Textbook of Insanity, Based on Clinical Observations for Practitioners and Students of Medicine", 1905 says:

> *"Autogenic Poisoning. - For the sake of completeness we should mention here the fact that the products of retrograde metabolism and their retention in the organism may give rise to states of intoxication. Thus, in the retention of the urine we have uremia (somnolence, coma, epileptic attacks, with post-epileptic psychic affections); also states of excitement with coma in diabetes, which has been referred to acetonemia; and psychic depression due to cholemia (icterus)."*

Wagner calls attention to:

> *"The possibility of the origin of certain forms of insanity, such as the hallucinatory, delusional, and depressed conditions, through auto-intoxication resulting from intestinal disturbances, with the absorption of ferments, ptomaines, leucomaines, etc. He observes that the acetonuria and large indican elimination resulting from the decomposition of albumin in the bowel, can be relieved by thorough cleansing of the intestinal tract. Special mention should be made of the interesting disturbances of physical and mental*

development and functions, occurring as a result of abnormal development, atrophy, or removal of the thyroid gland, which has the important factor to render harmless the toxic elements of metabolic processes. In connection with the functional disturbances of the thyroid and their effects upon metabolism would be mentioned myxedema, cachexia, strumipriva, and cretinism. The mental symptoms incident to the first two conditions are mental torpor, slowness of thought, and weakness of mind and will, even to dementia. There have been observed periods of melancholia, stupor, and hallucinatory delirium. In addition there occur changes in the skin; subnormal temperature; weak, clumsy, and difficult movements; and slowness of speech."

As a last word I will say that a careful study and practice of the subject of toxemia will bring gratifying results. You may enter the field a doubter, but you will become an enthusiast sooner or later. Symptoms lessen under it, and patients improve. Whether you obtain results from the use of colonic flushing, enemas, or enteroclysis, your patient will thank you, and call you blessed in spite of the unpoetic accompaniments attached to the treatment.

To quote Hare:

"The question is not whether a doctrine is beautiful, but whether it is true. When we wish to go to a place, we do not ask whether the road leads through a pleasant country, but whether it is the right road." - Augustos Hare

- Dr C. Spencer Kinney, MD in "The North American Journal of Homoeopathy", 1912.

"All of us here know, for instance, that headaches, backaches and that sort of thing are the mainstay of any doctor's practise. God knows that if we limit ourselves to treating either real illnesses or even disorders that can be actually cured, the need for medical men would be cut in half, and the other half would starve." - Evelyn Barkins in "Are these our Doctors", 1952.

The Cunning Medical Trade Advice

Medicine is like a fire, and money is like wood, thus the more money you throw at it the more it consumes. To resolve the Health problem of any population, being it a community or a nation, without removing "medicine", "the medical trade", "the medical art", "the medical science", "the medical" trained professionals, from the equation is suffering from a condition known as Fata Morgana.

The following books if read will aid in comprehending: What the Medical Trade Is, and most importantly what it is not:

1. The Unknown Causes of Disease: or The Idiopathic Nature of Medicine
2. Medicine: and Poisonous Pharma
3. Medicine: The Cure Is Worse than the Disease
4. Medicine: Lies, Greed & Death
5. Dentistry the Untold Story
6. Vision the Untold Eye Story

The medical trade makes use of any organizations that they have either control or influence over it. Such is the case with governmental funded organizations which are staffed by medical trade trained individuals. Such an organization is the National Health Service commonly known as the NHS. This organization which has a misleading name, and the same should be corrected and should be renamed, called National Medical Service NMS. This is because Health and

Medicine are two different, and totally opposite things, one from each other. Thus to call a Service Health when what which is being given is Medical Service, is to mislead in its presentation.

The NHS Aim to be the "world-leading health information service", and this is what they have to say about Colon Hydropathy:

Does Colonic Irrigation have health benefits?

> *"There's no scientific evidence to suggest there are any health benefits associated with colonic irrigation. In 2011, researchers in America analysed studies about the procedure, but found no strong scientific evidence to support it." - in www.nhs.uk/common-health-questions/nhs-services-and-treatments/does-colonic-irrigation-have-any-health-benefits-and-is-it-available-on-the-nhs/, (2019)*

The following e-mail was sent to the NHS on the 23 March 2019:

"Just a few questions regarding the gratuitous and half baked information given in your webpage.

> *"World-leading health information service putting people at the heart of everything we do. Funded by the Department of Health."*

After reading this and other statements. We have a few questions for the sake of clarity:

1. "There's no scientific evidence to suggest there are any health benefits associated with colonic irrigation."

The question is: Who says this? Is there a reference, a name of a persons, professional, association of any sort such

as the Medical Trade Associations: British Medical Association BMA, or its counterpart American Medical Association AMA? Could you please give the source. When you place nonsensical information, being funded by the tax payer, we expect that you back up the information with some references to same.

2. "In 2011, researchers in America analysed studies about the procedure, but found no strong scientific evidence to support it."

The question is: What is the name of the research, and/or what are the names of the researchers. Could you please give the reference to the claims you are placing on the website. We ask this for clarity sake.

3. "Is colonic irrigation safe?

People have experienced a variety of adverse side effects after having colonic irrigation.

Side effects have included:

Dehydration
Infection
Punctured bowel"

The question is: Could you send us the case reports of:

a) Dehydration
b) Infection
c) Punctured bowel

- The NHS replied on the 29 April 2019:

"Thank you for your recent comments about the colonic irrigation page.

The page reflects the current evidence and medical advice about colonic irrigation. The 2011 study was published in

the Journal of Family Practice and covers all of your questions about the lack of scientific evidence as to any health benefits of colonic irrigation and the risks and side effects of the procedure.

Please see: "The dangers of colon cleansing", in The Journal of Family Practice, Vol.60, No.8, August 2011.

Best regards,
Editorial team, NHS website

"The use of Colonic Irrigations of any of the foregoing medicaments has unfortunately perhaps, not been tried, I have not been convinced that they added to the treatment, and no doubt there was an underlying prejudice against Colonic Irrigations." - Dr Philip W. Brown, MD in "Results and dangers in the Treatment of Amebiasis, a summary of 15 years clinical experience at the Mayo Clinic", JAMA, 1935.

Improbable Research

The following email was sent on the 29 April 2019 to the researchers.

"This e-mail is being sent in relation to an article entitled: "The dangers of colon cleansing", published in The Journal of Family Practice, Vol. 60, No. 8, August 2011.

Knowing that:

"Water is of major importance to all living things; in some organisms, up to 90% of their body weight comes from water." - in "usgs.gov/special-topic/water-science-school/science/water-you-water-and-human-body", 2019.

Colon Hydrotherapy in its main being pure filtered clean water, it seems that you are trying to convince, the unaware,

that the structure of the anatomical colon is strong enough to deal with hard faeces, but weak enough to deal with soft clean water.

After reading your article, the following interrogations arise:

1. Do you see yourself, or are you an authority on colon cleansing?
2. Do you have training in colon cleaning?

3. Have you ever performed an enema?
4. Have you ever received an enema, or, done a colon cleanse?

You state that: "Patients may look to colon cleansing as a way to "enhance their well-being," but in reality they may be doing themselves harm." "Advise patients that colon cleansing has no proven benefits and many adverse effects."

5. Could you please indicate why you claim: "no proven benefits".

6. Could you please innumerate which are the: "many adverse effects."

7. Case 1 - "had gone to a "cleansing center".

You mention scanty cases (this was a disappointment of so "many" cases available, you and your team, could come up with only 2), with little information in which you try poorly to convince, and establish in the readers mind, some ill conceived theories and false pre-concepts, which are baseless, - should I rather say - based in pure and authentic medical trade scientific fudge.

In this regards could you please indicate:

a) Who was the practitioner,
b) At what "centre",

c) What equipment, and
d) Method was used in Case 1.

8. Could you please indicate why you collectively decided to include a private case (Case 2), that of an individual acting of his own accord, using what you claim to be a "colon cleanser", but without giving any information in its regards, leaving the reader totally in the dark. Can you inform (if known) what was the name?, and more important the ingredients of such "colon cleanser". And who advised the same?

Now it seems that after just 2 "cases", we ran out of examples.

9. "Colon cleansing basics: Colon cleansing, also called colonic irrigation or colonic hydrotherapy".

Could you please indicate that what you are saying is that:

a) Colon Cleanse is Colonic Irrigation?
b) Colonic Irrigation is Colon Cleanse?
c) Colonic Cleanse is Colonic Hydrotherapy?
d) Colonic Hydrotherapy is Colonic Cleanse?
e) Colonic Hydrotherapy is Colonic Irrigation?
f) Colonic Irrigation is Colon Hydrotherapy?
g) That all these "Colon cleansing, also called Colonic Irrigation or Colonic Hydrotherapy" are one and the same?

10. The question is: If your main aim is to attack Colon Hydrotherapy, why did you include, 1 of the 2 cases being a case of some one taking some sort of laxative?

11. You mention the words "bowel perforation", could you please elaborate more on this rare peculiarity by giving the reader some examples.

12. "Practitioners use for the procedure are not approved

for colon cleansing by the US Food and Drug Administration". Are you implying, in other words, that Colon Hydropathy Equipment is not approved for use.

13. Then you go on stating the following: "Where's the evidence?", "the evidence for this claim is limited." Have you ever heard of journals, books and libraries, where records of these things are kept?

Best regards,
Rui Alexandre Gabirro

The Nasty, The Bad, and The Ugly Side of the Medical Trade

Lawsuits Against Clinics and Manufacturers

In December 2003, the Texas Attorney General Greg Abbott filed 6 lawsuits against clinics, manufacturers, and one training association of colonic irrigation. Greg Abbott won court judgments against 6 defendants involved in the selling and clinical use of prescription colonic hydrotherapy devices in 5 Texas cities. In the USA colonic irrigation treatments, must be consistent with U.S. Food and Drug Administration guidelines. The only use cleared by the FDA is for treatments conducted prior to a patient undergoing radiologic or endoscopic examinations.

> *"The present work is written for the double purpose of correcting error, and imparting truth. Its purpose is not to attack men, nor systems, but simply to state facts by which their pretensions may be judged." - Dr. Frederick Hollick, MD in "Neuropathy, or The true principles of the art of healing the sick" 1847.*

Further Case Reports

The case reports, and clinical published evidence on Colon Hydropathy here given, is just a small part of what has been published in the last 200 years, the majority of the Colon Hydropathy Research published material is available in the Central Library of the Hospitallers Order of the Good News, Essenia, Principality of the Good News. Other case reports on Colon Hydropathy are given in the Book "Unknown Causes of Disease, The Idiopathic Nature of Medicine", 2020.

Following Publication

Due to intricacies on copyright laws, which are made to protect the interests of corporations rather the interests of writers and authors.

The following book, already written, will be published in 2028:

"Colon Hydropathy The Clinical Evidence & Published Research"

The book will present those articles which in 2020 where under copyright.

This publication will present remarkable new information from clinical researchers on Colon Hydropathy.

Colon Hydropathy Professional Clinical Practice Training

The Hospitallers Order of the Good News is the foremost Authority in Hydropathy in the world.

Colon Hydropathy periodically done is that which will aid in keeping the system rid of that which is a part of the necessary activity of the body Emunctory System, to set up better eliminations of the poisons from metabolism in the

body systems. This is in essence the therapeutic value of Colon Hydropathy.

Clinical Health Training on Colon Hydropathy, which is and constitutes but one of the many Therapeutic Methods of Hydropathy, is given by Volksmed School of Health and Pharmacology, a not for profit school, owned by the Hospitallers Order of the Good News a not for profit Christian Organization.

Hydropathy is professionally regulated by the Emunctology Council, established and an integral part of the Hospitallers Order of the Good News, a not for profit Christian Organization.

May The Lord, He Is God!
Keep you well and in good health.

Appendix A

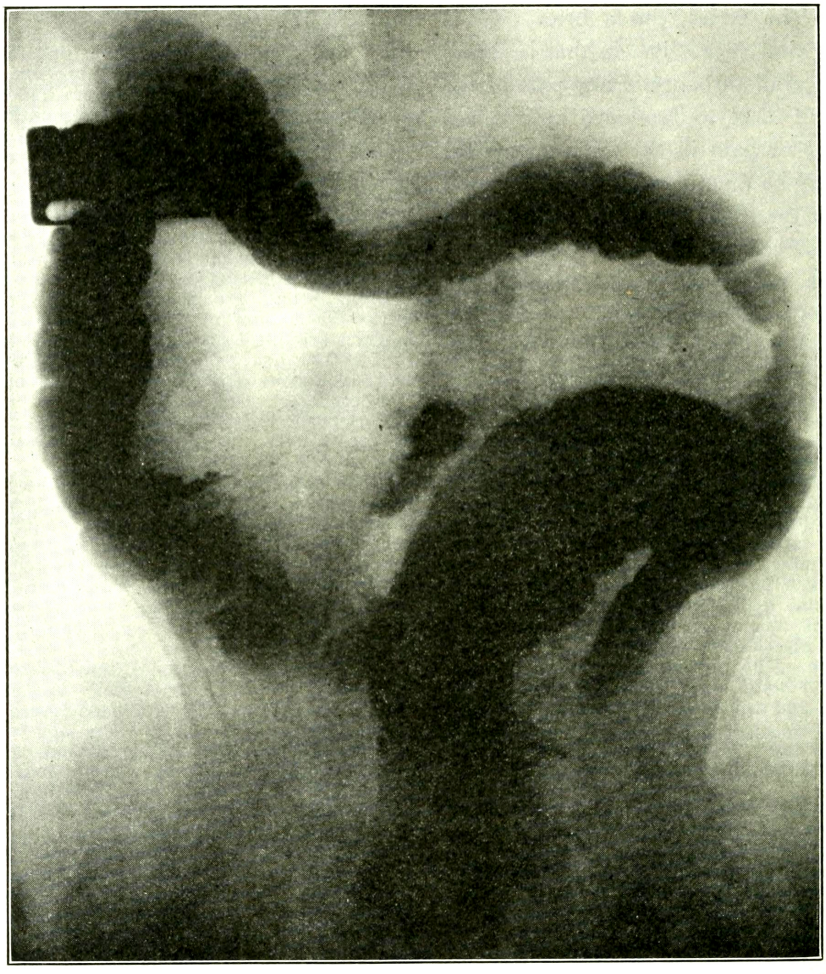


Fig. 1.

"Fig. 1 shows a distinct outline of the caecal impaction, resting against a large-sized "floating" sigmoid. This redundancy is doubtless due to the peristaltic waves from the caecum which are endeavouring to raise the impaction.

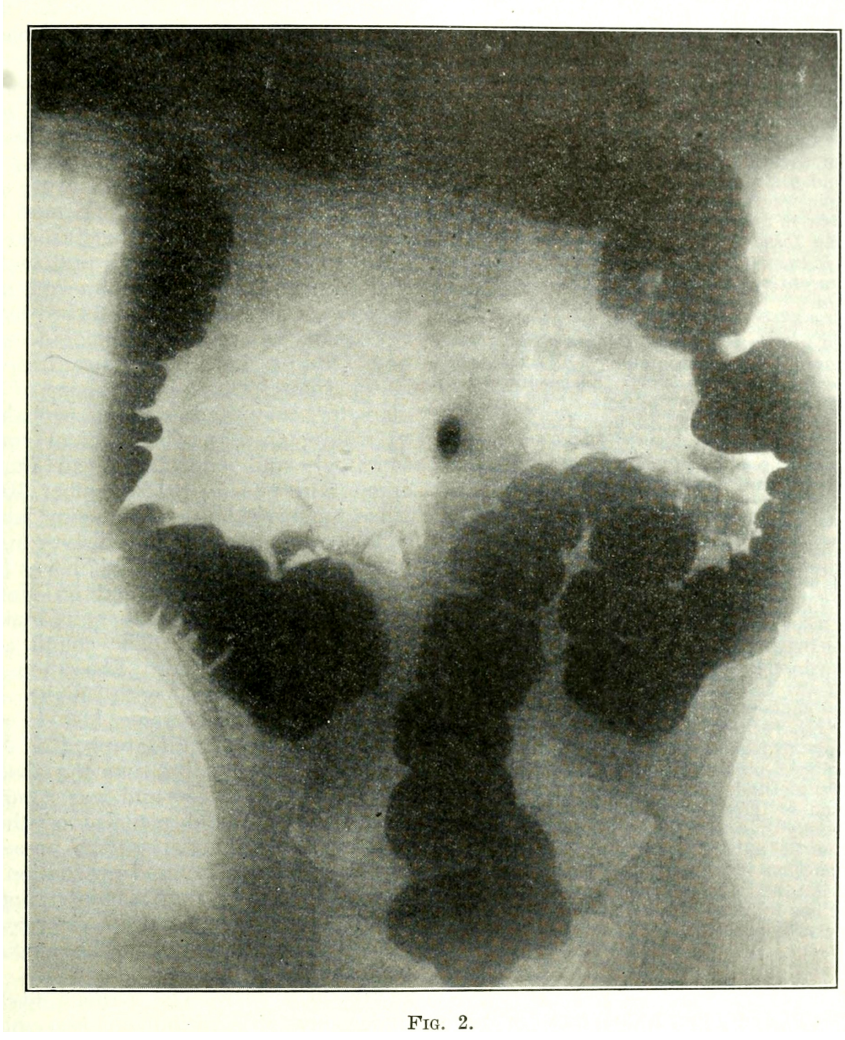


FIG. 2.

Fig. 2, the colon will be seen in practically normal position, the large loop being reduced to a very small, freely movable one at the splenic flexure. The well formed colon-sacculi show that the tonus Is normal in every respect." - O. Boto Schellberg, RN, in "American Medicine", November 1922.

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Book Titles Of Interest

Longevity the Untold Story

List of Contents

"How should one live to reach 150 years; Why We Grow Old; Why Animals Live Seven Times Their Growth-Period; How can these dangerous germs get into the body?; Human Life and Longevity; We Are Killed by Bacteria. The Prolongation of Youth; The Monuments of Egypt and What They Teach Us About Health. The Role that the Human Microbiome Plays in the Longevity of the Body; Regulation of life span by the gut microbiota in the short-lived African; Turquoise killifish; Microbial Genetic Composition Tunes Host; Longevity. Thy Youth Is renewed; Function of Life; The Chemical Basis; Good Lungs; The Body Regenerates every Seven Years. Body Regeneration; Life Expectancy; Resurrection Naturally; Cell Regeneration; Scientists Discover Addition of New Brain Cells in Highest Brain Area; Organ Repair and Regeneration; How does the Body Rejuvenate; Regeneration and Longevity. Discoveries; William Harvey Discovery; Telomere Effect: Living Younger, Healthier and Longer; Autophagy: Its role in the Maintenance, Rejuvenation and Repair Mechanism of the Body. Extension of Life-Span; Death is not a universal accompaniment of life; The Immortal Cells; Biological Immortality; The Immortal Cells of Henrietta Lacks; The Body Tissues are Immortal; Alexis Carrel & Cell Immortality; Hayflick's Limit Theory; The Immortality of Turritopsis Nutricula; Immortal Stem Cells; Pluripotent Stem Cells. Observations on Longevity; Remarks on the Examples of Longevity. Diet and Longevity; How to Avoid Growing Old. Long and Healthy Life. Outwitting Old Age The Louis Cornaro Story; We can Live so as to Outwit Old Age; Remarkable Cases of Rejuvenation. Longevity in Antiquity; Millennia; What is the oldest age that is now attained?; Longevity in the Ancient World; Moderate sized and well Proportioned; The Fountain of Youth; The Census of 1851; The Desire of Longevity. Yorkshire Longevity; 125 Year Old's; 127 Year Old's; 130's Year Old's. The Oldest Yorkshireman; Henry Jenkins; Wharfedale Centenarian."

Back Cover

“God created man to be immortal, and made him to be an image of His own eternity.” - Wisdom of Solomon 2:23, King James Version

“Be not deceived; God is not mocked: for whatsoever a man soweth, that shall he also reap.” - Galatians, 6:7

“Death is not a universal accompaniment of life. In many of the lower organisms death does not occur, so far as we at present know, as a natural and necessary result of life. Death with them is purely the result of an accident, some external cause.” - Charles S. Minot in “The Problem of Age, Growth, and Death”, 1908

"Such a machine as the human frame, unless accidentally depraved, or injured by some external cause, would seem formed for perpetuity." — Dr. Gregory in "Medical Conspectus"

"If a living organised being be examined at the epoch of its greatest perfection ... a mutuality of cause and effect is perceived which almost promises immortality." — Sir T. C. Morgan

"At some future day there can be little doubt that the value and duration of life will be extended greatly beyond what it is at present—greatly beyond, perhaps, what we at present can imagine” — Dr. Thomson in “Medical Dictionary”

The Unknown Causes of Disease, The Idiopathic Nature of Medicine

List of Contents

"On the Nature of Disease; The Never Ending Difference of Opinions; The interpretation of Clinical Test Results; Scientific Medicine; Disease as a Crime; Origin of Disease; Understanding the Causes; Major Maladies and Their Treatment; Cause of Physical Disease; Alzheimer's Dementia and the Reversal of Cognitive Decline; Main Drivers of Alzheimer's; Parkinson's; Sinusitis; Cause of Paralysis; Beriberi, Nerve Disorders; Causes of Mental Disease; Psychological Disorders; Constipation; Chronic Constipation from Disease; Atony of the Intestine (Darmatonie) Causes and their Mode of Action; Diseases of the genital organs in young women; Treatment of Constipation; Headaches & Migraines; Head Dizziness; Headache How Caused and Cured; Causes of Skin Disease; Diseases of the Skin and Kidneys; Skin and Psoric Conditions; Jaundice; Arthritis Principles of Treatment; Atherosclerosis Coronary Heart Disease; Treatment of Diabetes; Fevers; Treatment of Rheumatism and Allied Conditions; Curing Diseases of Heart and Arteries; Treatment of Acute Heart Disease; The Treatment of Confirmed Cases of High Blood Pressure; Hypertension and Kidney Disease; Asthma; Ataxia; Epilepsy; Attacks of Convulsions can be Avoided or Lessened; Backache and its Treatment; The Cause of Acquired Gout; Insomnia; Cancer its Causes; Colon Cancer; Vaccination and General Enervation; Behavioural Disorders included Autism; Ingredients, Components found in Vaccines; Postpartum Depression; Mental Troubles and Physical Causes; Dangerous Psychiatry; Sciatica; Causes that Produce Diseases; The Source of all Acute Diseases as it is a Consequence of all Chronical ones; How to supply the Place of Medicines by Diet; Chronic Rheumatism and Rheumatic Gout (Osteo-Arthritis); Premature Senility; Disease of the Kidneys; Causes of Diseases of Chest; Painful Menstruation; Pyorrhoea; Tuberculosis; Rheumatoid Arthritis and Loose Joints; Elcampsia; Cardiac Arrest."

Back Cover

"Aetiology: That Part of Physick which teaches the Causes of Diseases." - George Cheyne, MD, FRS, in "An essay on Health and Long Life", 1724.

"The cure of many diseases remains unknown to the physicians of Hellos (Greece) because they do not study the whole person." - Socrates, 399 BC.

"Doctors put drugs of which they know little into bodies of which they know less for diseases of which they know nothing at all." - Voltaire

"Of Disease we Know Nothing at All". - Dr William Osler, MD

"The Cause of Disease is Unknown" - Medical practice literature, 2018 AD.

"We have assisted in multiplying diseases; we have done more, we have increased their mortality." - Dr. Benjamin Rush, MD

"Ignorance breeds stupidity, it is your responsibility to get educated. Those who don't educate themselves, are condemned to being educated by others." - Rui Gabirro

Spoiler Alert!

It will be seen that it will probably take about 5,000 years, or longer for Medical Practitioners to finally find or "discover", the cause of disease(s). In the mean time if you don't want to wait, you may wish to read this book.

The Purpose of this Book

"The present work is written for the double purpose of correcting error, and imparting truth. Its purpose is not to attack men, nor systems, but simply to state facts by which their pretensions may be judged." - Dr. Frederick Hollick, MD in "Neuropathy or The true principles of the Art of Healing the Sick", 1847.

Moving Forward

Don Miguel de Cervantes Saaverdra, wrote a book called: "The

Ingenious Gentleman Don Quixote of La Mancha". Don makes it his mission to revive Chivalry, along with his squire Sancho Panza, whom is known for his many "sanchismos", quotes that use wit and humour and ironic proverbs. While there are many quotes to chose from, we dedicate this quote to the Medical Trade: "Let the Dogs Bark Sancho, It is a sign that we're moving forward!"

Medicine, The Cure Is Worse than the Disease

List of Contents

"What is Medicine; The Medical Understanding of Disease is Nil; Medicine Treatment; Intellectually Bankrupt; We Bleed, We Purge, We Narcotise; Men May Live Fools, but Fools they Cannot Die; Physic has been defined as: "the art of amusing the patient, while nature cures the disease."; Who's the Father of Medicine; The Epidemiology of Multimorbidity; Medical View: Disease Is Only About Biochemical Deficiencies; The Difference Between Health and Medicine; Medical Art; Death Rate Drops During Doctor Strike; When Doctors Strike, Fewer Patients Die; Attempt to Relieving Pain Without Dealing with the Cause; Medicine the Destructive Art of Healing; Nature and Art in the Cure of Disease; Concerning the Title of Doctor; The Relationship Between Theory and Therapy; Medical Freedom Medical Science; Science Delusion; The Science and Art of Medicine; Tower of Babel and Medicine; Scientific Medicine; Pseudo-Science; Medicine can Never be an Exact Science; Unnatural, Distorted and Inconsistent; The Medical Octopus; Doctors of Medicine Cannot Cure; Fallacious Faith on Medicine; Medical Teaching is Incredibly Faulty and Defective; The Laboratoromania of the Medical profession; The Practice of Medicine as Fudge; Empirical Science, Vitalism or What; Medical Science is Founded on a False Premise; Diagnosing a Medical Delusion; Disease Cannot Be Its Own Cause: Neither can it be its own cure, and certainly not its own Prevention; The Medical World is Looking for Cures; Scientific Medicine is Helpless; The Scandal of Poor Medical Research; Medical Research - Still a Scandal; Why Most Published Research Findings Are False; Scientific Literature Perhaps Half may Simply be Untrue; Drug

Companies and Doctors; A story of Corruption; Modern Medicine Not a Science; Ignorance Has Become Commonplace In Medical Practice; The Drug Medical System; Poisonous Medications; Drug Medicines were Worse than Useless; Then it was that People Began to Die; Drugs Always Produce Disease; The Deadly virtues of the Healing Art; Take his Good Advice and Refuse his Bad Medicine; Poisonopathy, A Few Words as to the Forms of Disease; Allopaths say it is: Contraria Contrariis Curantur "Contraries Cure Opposites"; What are its Agents, its Medicines, and its Remedies; This Patient Rapidly Recovered under Hygienic Treatment; Effect of Drugs; Secondary Diseases; Medical Economics; Medical School; Real Education Versus Engraved Pieces of Paper; Medical Training; Clinical Observations; Nothing To Do; The Prejudices of the Profession; Pernicious Effects of Blood-Letting; Of the Ignorance Existing Respecting the Power of Nature to Cure Diseases; Nature, or, in other words, the Inherent Powers of the Animal Economy, Are Either Entirely Ignored; Natural course of the Morbid Processes Occurring in the Animal Body; Curative Powers of Nature; Ignore or Depreciate the Working of Nature; Practice; On the Educational Value of the Medical Society; Angina in Doctors; Specialists and Specialism; With Regards to the Medical Clinic and Medical School; Psychiatry; The Gene-Based Theory of Mental Illness; The Four False Pillars; The Germ Theory; The Role of Bacteria, Their Useful Symbiotic Role in the Body; Micro-Organisms of Disease are Universal, But Disease is not Universal; Scientific Bluff; Disease Germs; The Germ Disease Theory; Vis Medicatrix Naturae; People Generally are Awed by Anything they do not Understand; Every Grain of Sand is a Metropolis for Bacteria; Goodbye to Germ Theory; Germs as a Cause of Disease is a Dying Fallacy; Why We Believe Germs do Not Cause Disease; Cognitive Impairment by Antibiotic-induced Gut Dysbiosis; Microbiome Restoration Diet Improves Digestion, Cognition and Physical and Emotional Wellbeing; J.D. Rockefeller's Involvement; The Forgotten Facts and Truths of Drugs; Intentional Ignorance; The Placebo Effect; Medical Illusion; Third leading Cause of Death; Healthcare Against Health; Both Guess-Work; Needless Surgery; One Operation Leads to Another; There is Nothing so Futile as to Attempt to Remove an Imaginary Pain by a Surgical Operation; Nature Heals; Medical Freedom; One of the Most Common Causes of Chronic Invalidism; Doctors of Medicine Ignorance of Dietetics; Medicine Doctors Sublime Ignorance of Food Values; Medical Specialities; Women Risk Losing Ability to Give Birth Naturally; Deaths of Medical Doctors; Suicide

Rates Among Physicians."

Back Cover

"The physician being, then, a blind man armed with a club, who, as chance directs the weight of his blow, will be certain of annihilating nature or the disease." - D'Alembert quoted by Dr. Richard Tonson Evanson, MD and Dr. Henry Maunsell, MD in "A Practical Treatise on the Management and Diseases of Children", 1842.

"If we compare the good, which a few true disciples of Aesculapius have done since their art began, with the evil which the immense numbers of Doctors have inflicted upon mankind, we must be satisfied that it would have been infinitely better for mankind if Medical Men had never existed." - Boerhaave

"Never mind the name of heterodoxy in Medicine, what is right is right." - J. R. Findlay.

"We can hardly refuse our assent to the observations of the late Sir Gilbert Blane, that in many cases patients get well in spite of the means employed; and sometimes when the practitioner fancies he has made a great cure, we may fairly assume the patient to have had a happy escape." - Dr Jonathan Pereira, FRS, Father of Pharmacology.

Spoiler Alert

Do not Read this if you wish to stay in Fairyland, By pursuing to read this book, you will realize that Medicine, something that misleads or deludes; an illusion, is basically composed of "Pretty gibberish invented to cheat the ignorant," and it is commonly defined by what some in the profession, for many years now have come to realize, that Medicine Science is founded upon: "Fudge", "Inconsistent observations", and other point out that it might also include "Fairy Dust."

Medicine & Poisonous Pharma

List of Contents

"False Impressions; Act: The First, Scene I; Graffiti 1732; Is Curing Patients a Sustainable Business Model?; The Only Effective Way to Combat Disease is to Cultivate Health; We Were Being Trained to Misinform People; Misrepresenting Research Results; Physical and Natural Therapeutics; The Vis Medicatrix Naturae; Medical Drugs are Poisons; The Danger of Drugs; Void of All Rational; Correctly Prescribed Drugs Take Heavy Toll; How many People Die from Medical Drugs in Hospitals; When Medicine Is Futile; Drug Medicine, Synthetic Pharma; Poisonous Medicine; Shall Physicians Become Sales-Agents for Patent Medicines; Our Medical Liberties; Compulsory Vaccination Act What Foolery in the 19th Century; Medical Legislation in England; Medical Act 1858; American Medical Association Inc; J.D. Rockefeller's Involvement; The Three Medical Schools in The United States; The Medical School and AMA; Medicinal Administrations, Chief Cause of Difference; The Progressive and Tolerant School; Teaching and the Teacher; The Grounds of Non-Confidence in Drug Medication; Medicaments in Daily Use; Polypharmacy; Pharma; Dr. William Osler on Pharma; Medical Science; On the Influence of the Medical Profession on the Manners; The Drug Delusion; Drugging Proved Unscientific; The Case of Dr Issac Jennings, MD; The Papua New Guinea Tribe; Every Year People Die from Medical Drugs; Effects on the Lymphatic System; Medical Drugs, The Great Contributors to Gastrointestinal Problems; An Analytical Inquiry; Chemical Medication is a Great Mistake; Today's Reality; The Vioxx Case How Americans Died and Nobody Noticed; Nifedipine; Paracetamol No Good for Back Pain; Opiods; On the Injurious Effects of Mineral Poisons In The Practice of Medicine; An Epitome of the System of Luigi Cornaro; The Only Mineral Substances We would employ in Medicine Are those which form part of the Body in its Healthy Condition; A Candid Appeal to an Intelligent Community; More Medication Means More Morbidity And More Death; Drugs, Toxins & Kidneys; The Commercial Soul of The Medical Trade; Dr Andrew Taylor Still, MD, DO on Medicine Drugs; Medicine A Failure; From the Womb to the Tomb; Absolutely Injurious In Their Effects; The Downside of Drugs; Antibiotics a Medical Leitmotif; The Cure Is Worse

than the Disease; Antibiotics As a Rule, Wreak Havoc with the Intestinal Ecology; Proper Intestinal Flora Balance; Erroneous Notions On Drugs; The True Role of Drugs in the Management of Tuberculosis; Secondary Role of Drugs; The Common Treatment; Quackery; Medicine; A Quack; On Medical Quackery; It is the Most Consummate Quackery to Prescribe Medicine to Cure a Disease, While the Cause that Produced It is Not Abandoned; The Prescribing of Medicine to Cure a Disease; Astroturf; Diagnosis a Medical Delusion; The Difference Between Precision and Interpretation in Lab Test Results; Debunking Drugs; The Ideal Remedy One that Neither Kills nor Cures; The Long Term Effect of Prescription Drugs; Drug Proving; Blood-Purifying Medicines Are Undoubtedly Very Beneficial To Their Makers, But Their Utility In Purifying the Blood Is Imaginary; On the Remedial Agents of the Schools; Therapeutic Progress; Organized Medicine; Acute Intestinal Intoxication in Infants; Drugs to Relieve Pain are Never Necessary; People are never sick who have no bad habits; The Toxicology of Sulphocyanates; Contraceptive Pills; Proton Pump Inhibitors; Drug Dealers; Iatrongenic Diseases; The American Death Ceremony; The Pharma Addiction Society; The Inefficiency of Drugs; Drugs Don't Work; What Is Diabetes; Psychiatric Drugs; Polypharmacy; Psychiatric Profession; 6,3 million Americans are taking Anti-Depressants right now; If I take Prozac tonight what's gonna happen to me?; 7 million in England taking Depressants; A Person can Slip Into a Coma and Die; Treatment of Mental Health by Hydropathy; The Case of Eleanor Riese; Mercury Used by the Medical Trade Is Extremely Toxic, Poison to the Human Blood, Causes Damage to Brain, Kidneys and Lungs; Calomel (Mercury Chloride); The Effects of Mercury; Dr James Morison, MD; How Mercury first became to be employed as a Medicine; How Mercury First Came to be Employed in the Cure; Of its being superseded by Guaiacum; Of Sarsaparilla; Of the Green Rind of Walnuts; Of the Cure by Simple Means; Beech Tree; Mercury; The Drug Story; What Nujol Started; Advancement in Medicine from the Drug Standpoint; Aspirin; Harmful Medication; A Very Commonly Used Drug; The Deadly Harm of Aspirin; The Action of Aspirin; Aspirin "Salicylic Acid" or Common Aspirin; Barbital or Barbitone (Diethylbarbituric Acid) Veronal; Barbital (Veronal) Poisoning; Veronal Poisoning; A Case of Veronal Poisoning; Cocaine The History of the Drug; Artificial Cocaine; Accidents Following The Use of Cocaine; The Effects of Cocaine on the Central Nervous System; The Value of Cocaine in Obstetrics; Cocaine Toxaemia; Restorative Wine of Coca; Mechanism of Death in Cocaine Intoxication; Cocaine No Longer

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